

# **The American Journal OF CLINICAL MEDICINE**

---

## **EDITORIAL CABINET**

**DR. W. C. ABBOTT**

**DR. A. S. BURDICK**

**DR. W. F. WAUGH**

**DR. EMORY LANPHEAR**

**DR. E. M. EPSTEIN**

---

## **VOLUME XV, 1908**

This index has been very carefully prepared: you should make the most of it. Have your copies bound. The expense is small and your journal becomes, thereafter, a valuable reference library—one to which you will constantly refer in times of difficulty. A collection of well-bound and well-indexed volumes of THE AMERICAN JOURNAL OF CLINICAL MEDICINE is a cyclopedia of practical therapeutics, a library in itself, and worth ten times its cost.

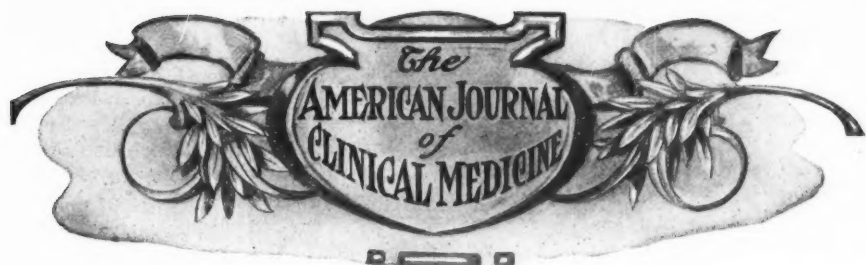
---

**RAVENSWOOD STATION, CHICAGO**

**THE CLINIC PUBLISHING COMPANY**

**1908**





Vol. 15

JANUARY, 1908

No. 1

## "THE MOVING FINGER WRITES"

A few words of holiday cheer and New Year's greeting to the readers and friends of Clinical Medicine, also introducing our "Special Progress Number"

WE have tried to make this number of CLINICAL MEDICINE, our "Progress number," better than any of its predecessors. We think we have succeeded, but we are content to leave the decision to our fellow-members of the great "CLINIC family" to whom we present it with all the good wishes of this season of joy and good cheer. May the "Happy New Year" upon which we are entering be as prosperous to all of us as the one that has just passed. In spite of the clouds that have overspread the financial horizon we believe that the future holds more of promise—for you of the medical profession and for us that cater to you—than has ever come to us in the past. Our united effort can bring all the good things to pass!

We are making history, you and I. The spirit of progress is at last breathing new life into Medicine, and especially into that most neglected, yet most important branch of it, Therapeutics. Nihilism has been the dominant note during the last decade. It was part of that "rationalism" which doubted everything—necessary, perhaps, to aid in casting off of the chrysalis of traditional errors and encumbering theories, but too destructive in its tendencies. The therapeutics of the future must be con-

structive; it must have definite aims; must not be wedded so closely to "pure science" as to lay aside the primal aid of medicine—the healing and relief of the sick. In other words, it must add to the scientific exactitude of modern science the more exalted motive of the altruist.

We are passing through a period of moral upheaval. It is a time of questioning, of ourselves and of others; of search for and passion for the truth; yet most of all for self-examination and self-justification. But instead of the despairing cry of the pessimist, "What's the use?" we are seeking to know "of what use" we can be in the world, and have come to realize that the greatest good comes in the giving of the greatest service. When that spirit has been breathed into our profession, medical science will cease to be a "valley of dry bones," but a warm, vitalized, living force. When we, as members of the profession, are actuated mainly by that spirit, placing the desire to help others above everything else, the medical millennium will be much nearer than it now is!

"The moving finger writes"—not, as the Persian poet would have it, something predestined and unchangeable, but under the impulse of forces of which we are a

part. Therapeutics is unquestionably advancing in response to the demand of the times, that the physician shall work for the salvation of human life rather than for the husks and straws of unproductive scientific achievement. And in this advance movement active-principle therapy is coming into its own. We see signs of this in the tremendous impetus that has been given it during the last few years; through the rapid accretions of strength that are constantly coming to it from the medical profession; and through the bitterness of the fight that is being waged against it by those interested in the maintenance of the "old order."

We have faith in the future. We are optimists, enthusiasts, and we believe that the triumphs of medicine are but just begun. The doubters are not the doers. And we also believe that the best way to dispel doubt is by doing. Therefore, we want to urge every reader of this number of CLINICAL MEDICINE to take hold with us in pushing forward the car of Progress. Do your part. Help us to do ours better. Forward!

---

"To love the truth in an age of lies,

"To hold fast art when hunger cries;

"To sing love's song in spite of hate,

"Keeping his heart inviolate,—

"These are the artist's victories.

—Hamlin Garland

---

### THE WASTE OF LIVES

---

A startling statement was that made by Dr. J. N. McCormack, chairman of the committee of organization of the A. M. A., in an address which he recently delivered at New Haven, Connecticut, that one-third of the 5,700,000 people who were ill or died during the last year might have remained in perfect health through the observance of the simplest rules of health. A startling illustration of the devastation wrought by disease is found in the statement that while 210,000 men fell in battle during the civil war, at the present time we are losing every four years more than 750,000 persons from tuberculosis alone—and this is a preventable disease! If we

should add to this the unnecessary deaths from typhoid fever, smallpox, diphtheria, cholera infantum and other diseases which result from ignorance, filth and carelessness, what an appalling list it would make!

It is time that the doctor came into his own—that his importance as a social factor in the present well-being and future efficiency of our race should receive its proper recognition. We agree with Dr. McCormack that "a great central health organization at Washington, endowed in accordance with the power and wealth of our federal government, is just as much a necessity, if our people are to have the benefits of modern scientific knowledge applied to their needs, as the Supreme Court of the United States."

If the doctor were accorded his proper place in the community, if he could see disease in its incipency, instead of when it is beyond help, if sufficient treatment along scientific lines could be applied early to every individual who needed it, it would have an almost inconceivable effect in reducing the number of deaths, not only from infectious diseases but from all diseases.

We certainly should use the influence of our organizations in bringing these things to pass. Here is a work, and a good work, for the American Medical Association to take up. This does not imply that the physician need sacrifice his efforts to cure disease by remedial agents. That would be just as bad for patient as for doctor. When we begin to study these things we shall find that the use of medicines will be just as necessary in the future as it is now, since skilful, early treatment of the minor ailments will do more than anything else to prevent the major ones.

We need to look at these problems from all points of view. The sanitarian should be a physician—a thoroughly competent one. He should know not only all that is to be known concerning the purification of water supplies, the disposal of sewage, vaccination, disinfection, etc., but also about quinine, strychnine, aconitine, and any other agent which may be used for the



arrest of disease in its very incipency. With this broad view of preventive medicine the importance of the physician will be more widely recognized and his services more largely in demand. Ultimately the doctor must come into his own!

#### LET'S BROADEN OUT

"The Philadelphia County Medical Society does, however, recognize the fact that the word 'regular' as applied to physicians and medical colleges has become offensive and obsolete, and that all persons of good character, adequately trained and legally qualified to practise medicine, should be admitted to the society and through it to the Medical Society of the State of Pennsylvania and the American Medical Association; provided only, that such persons shall be content with the honorable title of physician, neither adding thereto nor diminishing therefrom by any epithet or adjective."—*Solomon Solis-Cohen*.

It is hard to see what fault could be found with this expression by anybody whatsoever.

Never put off till tomorrow the laugh that can be laughed today.  
—*Somerville Journal*.

#### DR. GOULD'S ARTICLE

The first question likely to arise in the mind of the reader of Dr. Gould's article, "Vocation or Avocation?" which appears on another page, is, Are these things true? Such a terrific arraignment of the leadership of the medical profession, of the men who are teaching in our great colleges, writing our medical text-books, editing our official medical journals and controlling the destinies of our medical societies, has never before appeared in print—at least from the pen of a member of the medical profession.

CLINICAL MEDICINE neither endorses nor condemns Dr. Gould's article. Its own work is distinctively therapeutic. But it believes in free speech, and its columns are open to every man with a message to the profession which is of sufficient importance

to deserve attention. No one can question the importance of what Dr. Gould has to say, for if a tenth alone of his statements are true then there rests against a supposedly most respectable portion of the profession an indictment of self-seeking, charlatanism and graft beside which the alleged wrongdoings of pharmaceutical manufacturers and the independent press are petty and inconsequential.

Dr. Gould's paper deserves and should have an answer. The columns of CLINICAL MEDICINE are open to any man of any of the classes attacked for a proper reply. Who will volunteer?

#### GOOD AND BAD PREPARATIONS OF NITROGLYCERIN

At the July meeting of the Medical Society of Greater New York the venerable Dr. Jacoby made some important statements in regard to nitroglycerin. He believed that the reliance placed upon this agent was often misplaced. In the experiments carried on under the supervision of the New York State Board, nitroglycerin tablets were purchased in many quarters, from the wholesale druggists. It was found that although supposed to contain the one-hundredth of a grain of nitroglycerin, they seldom contained that quantity. Occasionally one-four-hundredth, one-five-hundredth, or even one-sixteen-hundredth, and as little as one-twenty-five-hundredth of a grain were present instead of the one-hundredth as claimed. A great many different reports have been made public of experiences with this drug in practice. Dr. Jacoby said that if one used nitroglycerin, particularly in tablet form, he was sometimes in danger of getting a worthless preparation.

This is a more serious matter than the simple failure of putting into the tablet the required quantity of the drug. Glonoin, or nitroglycerin, is not very expensive, and it seems as if the only reason for the deficiency must be carelessness; and if such a drug as glonoin is carelessly handled, what must we think of the manufacturer?

Probably this explains those remarkable cases that have been recorded, in which physicians say that they gave a whole grain of nitroglycerin at a single dose, with impunity.

We have used many hundreds of the granules containing one-two-hundred-and-fiftieth of a grain each, and are decidedly of the opinion that this is as big a dose as we care to give a patient at one time, at least as a beginning dose. After the patient's susceptibility has been ascertained, the dose of course should be increased to whatever may be needed. For ourselves the two-hundred-and-fiftieth of a grain of a standard granule invariably produces more of an effect than is altogether pleasant.

No perceptible change is evident in these granules after they have been manufactured for many years. There seems to be absolutely no deterioration of the drug. Glonoin is entirely too potent an agent to be handled carelessly, either by the manufacturing pharmacist or by the clinician. Its effects are absolute, unmistakable, perfectly characteristic and unvarying when the dose is exact. The caution given by the venerable Nestor of New York medicine is one which should not be neglected.

---

It is far easier to recognize error than to discover truth. The former lies upon the surface, and may be overcome; the latter reposes in the depths, and it is not given to every one to search for it.

—Goethe

---

#### OUR CURRENCY: THE PROBLEM OF THE HOUR

---

It is within the recollection of the present writer that many years ago Wall street suddenly awoke to the consciousness of a scarcity of currency. For a couple of days there was confusion; banks hurriedly dispatching messengers from one to the other to find out what had become of the currency. Finally it was discovered that Henry H. Smith had drawn five million dollars from the banks, in cash, and locked it up in his safe. This simple action was enough to disarrange the business of the whole community.

This serves to illustrate the point, that business in the United States is done with very little actual money. It has recently been said that there is only two and one-half percent of actual money exchanged in business transactions in the United States, ninety-seven and one-half percent being done on checks, drafts and other commercial paper. The same point may be illustrated by the remark of a leading financier in Chicago, that "all the money in the world would not suffice to pay out the depositors of all of the banks in the United States, should all call for their money at once."

Apparently this is exactly what a good many of them have been doing recently, and throughout the entire country there has been a steady drain of deposits from the banks. This has compelled the banks of the great cities practically to suspend payment, nearly all of them refusing to pay out currency and meeting calls by checks upon each other. A few of the smaller banks, unluckily not being embraced in the Clearing House Association, were refused this privilege, and their suspension is a more serious matter. One instance comes to our personal knowledge. This bank had not lost a dollar or made a single bad loan. Not one dollar of its resources was embarked in a questionable or perilous undertaking, but every security was dollar for dollar worth its full face value; nevertheless, the money calls came upon it and it was unable to transform its assets into ready money, and was forced to close its doors temporarily. Its loans had been made upon real estate, and upon settled business enterprises, from which the funds could not be withdrawn on a day's notice.

A bank may be organized with one hundred thousand dollars capital. If this money were loaned at six percent, it would bring in six thousand dollars per annum, which would be very far from meeting the expenses of the institution; but depositors place in the hands of the bank nine hundred thousand dollars more, making a million in all. Of this eight hundred thousand

dollars may be loaned out, bringing in an income of forty-eight thousand dollars. This amply suffices to pay the expenses of the bank, a small interest to time depositors, and a reasonable dividend to the stockholders, besides leaving something for the surplus fund every year. This is banking.

But suppose the people who had deposited this nine hundred thousand dollars demanded it at once; it is obviously impossible to meet such a demand without liquidating, that is, realizing upon the loans; and this takes time—in fact, it takes more time in proportion to the solidity of the investment. No investment is so substantial as real estate, and none takes so long to turn into cash.

Loans made upon stocks and bonds are more easily liquidated, for the reason that these may be taken to the exchange and sold at an hour's notice; but the chances are infinitely greater. There is scarcely a stock held on the New York Exchange today that is worth one-half what it was a year ago. Take Great Northern, which sold at three hundred and thirty-three dollars a share; now it sells for less than one-third of that, and banks which had loaned upon that stock have had to scuttle to get out of the hole, as the price sinks to something near the amount they had loaned. Bonds are something better, but not much. We noticed last week that a lot of railway bonds selling on the market in the neighborhood of ninety, had been placed for a loan of fifty dollars per share; the price of the bonds slowly sank until it reached fifty dollars, and they had to be sold to protect the banker. Yet bonds are considered much safer as to security than stocks.

These facts furnish the singular paradox, that an institution may be forced into suspension by the solidity of its investments.

A prominent financier remarked to the writer the other day that the safety deposit companies were the ruin of the country; and this is to a certain extent true. Money which is placed in a safety deposit vault is dead money; in fact, money ceases to be alive so long as it remains money. In

order to become productive, to increase and multiply as property ought, it should be changed from money into some form of property. Real estate produces rent, farm lands produce crops, mines produce metals, and business enterprises produce money, by the purchase and sale of products. In one or other of these methods, money must be invested in order to make it increase. Sometimes people fail to realize the difference between safety deposits and banks, and angrily exclaim against banks which are not ready to furnish their money on demand.

The recent movement, the writer believes, was an outcome of the disquiet scattered by Thomas Lawson, the result of which has been a gradual sentiment of distrust in regard to the actual value of stocks, and the security of the banks. This progressed so far that people began uneasily to draw down their deposits and lock up their money in their homes; with great advantage for the burglar, whose work was thereby greatly facilitated. In a great country like ours it does not require much of a movement like this to make itself felt in financial circles. If one percent of the deposits of the country were withdrawn each month, within one year there would be a financial stringency. If this continued through a second year we would be on the imminent verge of a panic.

If this money were simply withdrawn from one bank and put into another, there would be no difference whatsoever; it is the withdrawing and putting in safety deposits, or hoarding it in people's homes, that makes the trouble.

When such a movement as this begins there is only one way to meet it, and that is by increasing the bulk of the currency. If people want to hoard money we will have to supply more money, and the difficulty in our days is to do this. Half a century ago it was perfectly easy. Banks were started, which were allowed to issue notes without limit, and unfortunately without responsibility. In those days a man received a bundle of state bank notes, and commenced counting them up. The bank

that was nearest him was probably worth one hundred cents on the dollar; if it were fifty miles away he took off five percent; and so went on, and by the time he reached Michigan his notes were practically not worth anything—so much so, that our older readers may recollect the time when a customer would enter a store and anxiously inquire if they received "Michigan money" in exchange for goods.

This state of affairs led to the national bank system, which compelled the deposit of at least one dollar in United States bonds for every dollar of circulation that was put out. This gave United States Government security and equality to our circulation, but it deprived the circulation of elasticity, which is the great defect of our banking system today. Now, when there is a universal demand for currency, it cannot be supplied.

---

In nineteenth century nations and twentieth century empires the determination of every man to be rich at all costs, and of every woman to be married at all costs, must, without a highly scientific social organization, produce a ruinous development of poverty, celibacy, prostitution, infant mortality, adult degeneracy, and everything that wise men most dread.—Bernard Shaw.

---

#### OUR POST-GRADUATE CORRESPONDENCE COURSE

---

In this number of *CLINICAL MEDICINE* we inaugurate our new postgraduate course, which, as previously announced, will be under the personal direction of Dr. George F. Butler. This undertaking is a decided innovation, and since we are not tied down by precedent and tradition or fettered by a superstitious reverence for "authority," it can safely be predicted that nothing likely to be attempted in this direction will, nor possibly can, prove of such high value to the everyday practical physician. This course, hence, will stand as the best. And why best? Because we shall place above everything else the practical, and to the practising physician the best is what helps most. If our course does not give the maximum of help it will fall short of the end for which it is intended.

The time is certainly ripe for this school. In this belief we are borne out by *American Medicine*, which, editorially, says:

"Postgraduate correspondence medical schools have been suggested before but contemptuously ignored by the medical profession, though the idea is well worth considering in view of the difficulty, if not impossibility, of many a practician sparing the time necessary to visit a distant city for the usual short postgraduate course. It has been left to a nonprofessional correspondence school to take up the matter and offer instruction to physicians in a certain specialty. It is a most anomalous state of affairs and should be promptly remedied.

"There is no doubt whatever that in many special studies the regular medical schools and medical associations, with their wealth of current literature, standard libraries and available experts, could supply this great and crying need of the country doctor. He could thus be so well grounded in the essentials that if he does find it possible to supplement it with some clinical instruction later, he will be able to profit by it to a much greater degree than at present.

"The idea is in line with the trend of thought in regard to making medical education cheaper and more available to that lay class, which cannot possibly take the tremendous modern courses suitable only for the rich who can spare the time. Regular universities offer correspondence courses and give degrees or certificates, and it does seem practicable for their medical departments also—at least to a limited extent in the postgraduate specialties. The correspondence department of certain medical journals is quite large. The questions show the great need of the instruction requested by the writers of the letters, and the answers show the need of instructors."

We are hopeful that the number of the readers of *CLINICAL MEDICINE* who will take up this course of study will be very large from the very start. Go through the first lesson, published elsewhere in this number, very carefully, send in your answers to the questions, and with them any suggestions for the possible betterment of the course. The

first lesson is necessarily introductory. The course will grow in interest as it advances. Do not neglect this lesson. It is important.

#### A DRUGGIST OF THE RIGHT KIND

A druggist, writing to *N. A. R. D. Notes*, mentioned among other reasons for not accepting a proposition from a patent-medicine house the fact that their advertising had too much "the-doctor-failed-to-help-me" stuff in it to be compatible with the druggist's idea of friendly cooperation with the physicians.

We are sorry that *N. A. R. D. Notes* did not tell us who the druggist was, that we might notify the physicians in his vicinity and give them the opportunity to show how they appreciate his action. Courtesies of that sort we ought to meet a little more than half way. Give such men as this a "boost" wherever and whenever you can.

#### THE RED CROSS

Some resolutions recently adopted by the executive committee of the American National Red Cross deserve our attention. We have all been annoyed by the careless and indiscriminate use of the insignia of this society—the "red", or Geneva, cross—by all kinds of institutions, regular and irregular, erratic and fraudulent, commercial and scientific, military, naval, etc., so that the distinctive purpose of this insignia has become almost entirely lost. The resolutions suggest that "all individuals or business firms and corporations who employ the Geneva Red Cross for business purposes kindly desist from such use, gradually withdrawing its employment and substituting some other distinguishing mark." They also suggest that "all hospitals, health departments and like institutions kindly desist from the use of the Red Cross, substituting for this insignia a green St. Andrew's cross on a white ground, to be named the 'Hospital Cross'."

These resolutions are excellent and ought to be adopted. We are glad to have this opportunity to urge this upon the readers

of CLINICAL MEDICINE, especially such as are engaged in hospital work.

The human race is divided into two classes: those who go ahead and do something, and those who sit and ask, "Why wasn't it done the other way?"

—Holmes

#### THE AMERICAN MEDICAL ASSOCIATION

There are some men (few, we are glad to say) who seem to be laboring under the mistaken apprehension that we are unfriendly to the American Medical Association. We want to disabuse the minds of everyone of this suspicion, *right now, once and for all time*. More than once we have risen in defense of the Association; we have printed page after page in its support; again and again we have urged upon our readers the wisdom, the importance to themselves and the good of the profession as a whole, of joining the local, state and national organizations. Nothing could be stronger than the position we have taken on this question. There has been no equivocation, no change, no turning aside. That has been and still is where we stand. And to "clinch" things, to make our position still stronger, we again urge every one of our readers to *join the Association*.

But—and here possibly arises the charge of "irregularity", so assiduously, ingeniously and ingenuously made against us—while we shall do everything in our power to further the best interests of the Association, we can not and will not be bound to indorse all the opinions of its servants. This is no case of "love me, love my dog." The officers of the Association and its various "Councils" are not the Association itself. The insinuation that criticism of these individuals implies antagonism to the Association itself is unworthy of attention, for how can errors be corrected and wrongs righted when the voice of criticism is stifled?

Those who love the Association are not wise in endeavoring to muzzle those who find flaws in its management. We believe that most physicians are like ourselves: they want to have the truth—not a part of it, but all of it; they want no aristocracy



of accepted opinions, but a democracy of thought—every tub standing on its own bottom; and they believe in the “square deal”—with no favorites.

That is what we want to see in the Association. Moreover, we want it to grow bigger and stronger and better; and we want it to do more and ever more for the doctors of America. It should be not only big but broad—too broad to be the organ of personal animosities or the medium of the petty spot.

Have we made our position clear? We hope so. But it may clarify the atmosphere still more to know that the editors of *CLINICAL MEDICINE* are not candidates for medico-political office; also, that we are not especially “agin’” anyone personally; further, that we are anxious to contribute our mite (and it may not be so small either) toward making the Association a great force for good; still further, that we shall continue to think exactly what we think—fighting only when we must, in defense of what we believe to be right.

---

He who cannot reason is a fool; he who will not, a bigot; he who dare not, a slave. —Drummond.

---

#### A STRONG ADDRESS

---

The address made by Dr. T. D. Crothers at the Mississippi Valley Medical Association, on “The Relations of the Doctor to the Alcoholic Problem,” has been reprinted from *The Medical Fortnightly*, and we presume copies can be obtained by application to the author, at Hartford, Conn. This paper was deemed so important by those who heard it at Columbus that it was strongly urged that the paper be sent to every lay publication in the State of Ohio, in order that it should get before as many of the laity as possible. We would suggest that every physician who is interested in this subject (and what physician is not interested in it?) send to Dr. Crothers for copies of the paper and circulate it as widely as possible. If each of us should ask our local journal to republish the paper great benefit would result. The topic is handled in a

quiet, sensible manner, free from anything like intolerance; and while worded in scientific parlance, it is yet fully within the reach of the intelligence of the average citizen. The statistical facts embraced in this paper are startling.

---

#### THE “SQUARE DEAL” FOR THE OLD DOCTOR

---

In his presidential address at the thirty-ninth annual meeting of the Nebraska State Medical Society Dr. F. A. Long made some sensible comments on the difficulty experienced by old practitioners in trying to change from one state to another. We trust that Dr. Long will not stop here, but will bring the matter squarely before the Council on Education and the Association of Medical Examining Boards. If these gentlemen see that the profession demands a change in this matter, it can be easily secured. For, after all, they are not foreigners, but belong to the profession, and must heed the voice of the profession. A crying injustice was done to many respectable gentlemen when the state boards, instituted for the protection of the people against incompetent practitioners, have been made to work an absolute cruelty against these worthy members of our own profession.

---

#### ACUTE ANTERIOR POLIOMYELITIS

---

The fact that an epidemic of infantile paralysis has recently prevailed in New York City, and that cases are being reported from various parts of the country, leads us to say a few words on this singular affection. It now seems quite probable that this is a disease due to a microorganism, its history following closely that of other diseases in which this causation has been firmly established. As yet no specific microorganism has been discovered, but we may confidently expect this in the future.

This being the case, what should be our treatment of this malady? Evidently we must apply here the principles which have been established in the treatment of other

infectious fevers. In the first place, the alimentary canal must be completely and fully unloaded and disinfected. Let us say that in addition to the usual means employed for this purpose, that is, calomel and podophyllin followed by a saline laxative, it seems probable that the derivation established by the use of injections of cold saturated table-salt solution ought to be exceedingly valuable. This being done, or even while it is being done, we should proceed to saturate the system as quickly as possible with calcium sulphide in order to combat the microbic infection. We should also at the same time saturate the patient with nuclein to reinforce the leucocytes in their fight against the intruders.

This would comprise apparently the leading treatment of the disease, beyond which we should treat the symptoms. Fever, inflammation, high pulse call for aconitine and veratrine; while the heart should be supported, and this indicates the use of strychnine and digitalin, arsenic being added to promote quicker destruction of morbid deposits and relieve the infected area along the spinal cord sooner.

It may be asked why strychnine should be indicated in an inflammatory condition of the spinal cord, when this agent stimulates the cord? So much depends upon the dose. It is not our purpose to suggest that strychnine should be given in doses which would cause tetanic convulsions. In fact, if the irritation is acute, strychnine should not be given at all. Nevertheless, if the affected nerves are being overwhelmed by the virulence of the attack upon them, the cautious administration of very minute doses of strychnine, stimulating these nerves, would aid in enabling them to repel the attack and retain their vitality when it is so rudely assaulted. The dosage here is everything. It is up to the physician to secure exactly such a dose as will really benefit his patient and not overdo the matter.

Keep the eliminant doors wide open. Keep the bowels free from fecal matter, whose decomposition would add to the danger of the patient, and by inducing

fecal toxemia help still further to depress the suffering tissues. Sustain the patient. Keep down undue fever.

Would counterirritation be of any avail whatever? The anatomist asks: "How can it possibly do so? If you abstract blood from along the course of the spine, this blood comes from the skin. Is it possible that it can influence the spinal cord, floating in the liquid which surrounds it?"

Most assuredly it is possible. Blood being drawn toward the skin, by abstraction or by blistering, the fluids will flow in from the underlying vessels to replace it, depleting the tissues down to the spinal canal. These depleted tissues would absorb liquid from the spinal fluid, leaving it more concentrated; and it would in turn absorb liquid from the spinal cord itself. Exactly the same thing takes place when a pneumonia is treated by local applications.

Here we see that the physiologists rank themselves against the anatomists. The latter, dealing only with dead tissues, say that it is absurd that the effect of a remedy can spring across a cavity and reach an internal organ. The physiologists say it is perfectly easy to do this.

As to the effectiveness of counterirritation, or the local abstraction of blood from over the spine, that is another matter. That is something on which the clinician should have his say, neither the anatomist nor the physiologist being competent to judge.

One other point—would it be possible to break up an attack of this infection at the beginning, by a full dose of pilocarpine, sufficient to cause profuse sweating and at the same time enormously increase the number of leucocytes in the blood? This also is a question for the clinician.

Altogether, this affection looks to us like one in which the principles of treatment which we advocate in other infections ought to be tried, and in which they ought to be effective. If they are not effective, then we should revise our ideas on this subject and see whether we have been unduly



hopeful as to the action of these remedies in other infective maladies.

Taking the acknowledged powerlessness of the old system of medication in this malady, it is certainly up to us to give a fair trial to any new method which promises even the possibility of success. Ask any of the adherents of the old methods of medication whether drugs are of use in treating infantile paralysis, and they will unhesitatingly say to you, No. Then why bother with them? Ask any of the users of active principles the same question, and he will unhesitatingly reply, "I have never used them, having had no opportunity to do so." The evidence in the one case is positive, in the other it is negative. It is evidently up to us to try the new methods and see how they apply in the case of this disease.

---

Even the clearest and most perfect circumstantial evidence is likely to be at fault after all, and therefore ought to be received with great caution. Take the case of any pencil sharpened by any woman; if you have witnesses, you will find she did it with a knife; but if you take simply the aspect of the pencil, you will say she did it with her teeth.

—Mark Twain

---

### CARDIAC TONICS

---

Haynes, in the last number of *Folia Therapeutica*, contributes some valuable considerations on the use of cardiac tonics. He says that at present the physician has no guarantee that the tinctures or other preparations of digitalis, strophanthus, or squill, which he prescribes, will have the action on the heart he desires. The manufacturing chemist may select what he considers first-class specimens of the leaves, and yet prepare from them tinctures which have very little action on the heart. It is not yet possible to determine the amount of active substances in the cardiac tonics by chemical methods, although this can be done easily enough by physiologic methods. Singularly enough he does not ask why not, as the accompanying dirt is of no value to us, cast it away and use these active substances by themselves, since they are what we want? Surely nobody would for a

moment say that we want the inactive substances.

He says that there is no doubt that galenic preparations vary much in activity. A certain quantity of digitalis is lethal to a certain quantity of mammalian heart-muscle. The glucoside content of the cardiac tonic is a variable quantity, which can not be determined chemically. Moreover, when the glucosides are separated, they vary so much in activity as to demand standardization as much as the galenics. As example he says that one of the most active samples of digitalis he had examined was prepared from the first year's leaves, and a tincture of strophanthus from specially selected leaves, had only half the activity an average good sample should possess.

This is an extremely unsatisfactory state of affairs from the practitioner's and the patient's point of view. Digitalis is our sheet-anchor in the treatment of heart disease, but it must be within the experience of every medical man to have administered the drug in what he regarded an eminently suitable case, yet without benefit to the patient. In some such cases he will perhaps substitute the infusion for the tincture, and possibly by chancing on a more active preparation he may obtain the effect he desires. In other words, by using the infusion he obtains the digitalein, or "digitalin Germanic," which he could have obtained in its purity with much less difficulty.

Dr. Haynes praises physiological standardization. He says that still more recently we have been able to purchase the active glucosides, as examples of which he quotes Merck's digitoxin and Boehringer's strophanthin; and says: "So far as I have observed, both these substances exert a constant type of action. The strophanthin is extraordinarily active; as soon as the drug reaches the heart, the ventricular contractions become much more forcible and complete, and the work done by the heart is about double." He goes on to say: "It is perhaps hardly necessary to point out the enormous advantages to be derived from the possession of a drug of this type

which can be relied upon in an emergency. Strophanthin when injected intravenously produces an almost immediate effect on the heart. It appears to be taken up and held by the cardiac muscle, for the effect on the heart is prolonged; that is, the drug is not excreted immediately.

All cardiac tonics exert some action on the peripheral blood-vessels. They may cause a most intense constriction, as in the case of apocynum, or squill, or a very small effect, as in that of strophanthus. This difference is of some importance when treating heart disease with arterial degeneration and high blood-pressure. Here it has been suggested that vasodilators, particularly the nitrites, should be administered with the cardiac tonics. Unfortunately such a combination does not produce the desired effects. First the nitrite effect overshadows that of the cardiac drug, and vasodilation is a prominent feature; then the cardiac drug obtains sway and dilation disappears. Nevertheless, beneficial effects follow the use of erythrol tetranitrate combined with digitalis or strophanthus."

However, Dr. Haynes further says that other vasodilators are now known which are almost as efficient as the nitrites, but without their objectionable properties. Referring to caffeine, theobromine and theophylline, all these increase the rate of the heart-beats by direct action on the heart-muscle, dilate the peripheral blood-vessels and augment the flow of urine. Caffeine is of course a cerebral stimulant, exciting first the vasomotor centers and causing constriction of the peripheral arterioles, the central effect for a time overshadowing the peripheral. Theobromine has little or none of this central action, and so produces immediate dilation of the vessels, and is therefore a suitable substance for combination with cardiac tonics in such conditions. It may be administered conveniently as diuretin, a combination of theobromine with sodium salicylate, which is readily soluble. It affects the heart like caffeine, increasing the rate and to some extent the force of the beat. One noticeable effect is marked dilation of the coronary vessels.

By the combined action of a cardiac tonic with a vasodilator, like diuretin, the heart-beat is slowed and strengthened, and the flow of blood through the vessels increased, including the coronary arteries. To some extent the action of the tonic on the vagus ends would be neutralized by the action of diuretin on the excitomotor area; but the vagus effect always overshadows the tendency to acceleration, and the heart consequently beats more slowly.

Theobromine differs from some other vasodilators in exerting a stimulant action on the heart; it dilates all peripheral vessels, but owing to the augmented action on the heart the blood-pressure does not fall below normal but tends to remain even a little above it. Diuresis is an early effect, secondary to the increased flow of blood through the kidney. This combination has produced excellent effects in cardiac dropsy, failing heart, and, above all, in general degeneration of the cardiovascular system following persistent rise in blood-pressure.

Cumulation: Digitalis and squill are slowly absorbed from the stomach but still more slowly excreted; probably actually enter into some loose combination with the cardiac muscle. They take so long to produce their effect that in case of emergency it is useless to give them by the mouth. Strophanthus is more rapidly adsorbed than the others.

It is interesting to note, in communications like this, how the profession is gradually approximating to our view. Many millions of granules of Germanic digitalin have now been placed in the hands of the profession. We have given thousands of doses of this preparation ourselves, and have corrected our own observations by reports from many others. We therefore feel fully justified in adhering to our position that Germanic digitalin fully supplies every valuable application of digitalis; that this digitalin, being quickly soluble in water, gives its effects very quickly; that it does not accumulate; that it is far more rapidly absorbed than any other preparation of digitalis; in fact, that it

gives all of the advantages of digitalis without any of its disadvantages or perils. And we cannot resist the conviction that those who do not appreciate the value of this preparation are exclusively those who have not given it due consideration.

It is interesting also to note how the profession is coming around to our original position that the combination of glonoin with heart tonics is irrational. The suggestion to combine digitalis with theobromine is a good one. Nevertheless, the combination with aconitine or veratrine has afforded such inestimable advantages that we would be very slow indeed to leave it. This also has been approved by the use by the medical profession of millions of doses, and we must adhere to our belief that such testimony in its favor far outweighs that of any single observer, even though he be the distinguished pharmacologist of the University of Cambridge.

The reader of these excellent papers will note how these studies lead directly up to the use of the active principles and stop there. It reminds us of Niemeyer's magnificent work on tuberculosis, in which he led up to the tubercle bacillus, not yet discovered, so accurately that not one word of his description had to be changed when the bacillus was announced.

#### CONDURANGIN FOR GASTRIC PAIN

Here is a therapeutic suggestion for those who need it. Condurangin has been shown to be remarkably efficient in subduing gastric pains. Dismiss for a moment the question of whether it is curative in gastric cancer, and whenever you have a case in which there is pain, hyperesthesia, in the stomach, which needs to be quelled; after ridding this organ of any local cause which may keep it up, such as the presence of an excess of hydrochloric acid, try the effect of a milligram of condurangin dissolved in a tablespoonful of hot water, taken one hour before each meal and on going to bed. The writer has had but few cases in which to try this suggestion, but in each of these he has found within

forty-eight hours that there was a distinct benefit accruing, the oversensitiveness subsiding and the patient finding himself distinctly and decidedly relieved. We give the suggestion for what it may be worth.

"Clearing-house certificates and tight financial conditions," says a Chicago paper, "have afforded more people who never had a dollar an excuse for their hard luck than anything that has happened since the civil war."

#### THE PARCELS POST

It is a strange but interesting fact that a person can mail a package from Chicago to Buenos Ayres or from San Francisco to Budapest cheaper than he can send the same package by mail to Peoria or Los Angeles. Furthermore a foreign-bound package weighing as much as eleven pounds is admissible to the mails, while one intended for domestic delivery must not exceed four pounds. A package weighing four pounds can be sent to any European point for forty-eight cents, while the same package sent anywhere within the borders of our own country will require sixty-four cents in postage, the rate to foreign countries being twelve cents a pound, while that to our own people is sixteen cents a pound.

These facts were brought out by the new postmaster-general, Mr. Meyer, in an address recently delivered before the New England Postmasters Association, in Boston. The American people have long been endeavoring in a half-hearted, unorganized way to secure a parcels post, but thus far have failed. There is no good reason why we should not have it. It is something which the governments of every other civilized country provide for the convenience and comfort of their people, while the United States lags in the rear of even the petty principalities of middle Europe and the kaleidoscopic republics of Spanish America.

Someone has stated that there are four reasons for our failure to have the parcels post, these being the four big express companies, which have thus far succeeded in prevent-

ing legislation they esteem hostile to themselves. Another opposing force has been the country merchant, who has seen in the extension of privileges of this kind the further growth of the great mail-order houses, which now reach out their tentacles into every hamlet and along every rural free-delivery route in America. These houses have worked havoc with the country merchants, or at least so the country merchants think, and the latter naturally oppose bitterly any concessions from the national government which would further build up these powerful and rapidly growing commercial forces. And yet the mail-order houses have been a great thing for the countryman, forcing the local merchant to sell at reasonable prices while bringing the buying facilities of the great cities to the farmer's door.

Mr. Meyer thinks he has found a means by which he can provide the people of the country with the cheaper parcels post and at the same time satisfy the country merchants. The proposition in brief is to lower the rate on parcels from sixteen to twelve cents a pound and increase the maximum weight of mailable packages from four ounces to eleven pounds. A still further concession would be made for the delivery of packages along rural free-delivery routes, the charge for this service to be five cents a pound for the first pound and two cents for each additional pound up to eleven pounds, or twenty-five cents for a package having the maximum weight.

Thus far the opposition to this proposed law, which Mr. Meyer will submit to Congress at its next session, has been comparatively slight—coming mainly from those interested directly or indirectly in the maintenance of the express companies' service. It promises well, and for the doctor it should be a good thing. Many physicians who live in remote country districts along rural free-delivery routes, where it is difficult to get supplies on short notice, will be greatly benefited by such a provision.

We therefore bespeak for them not only a hearty interest in Mr. Meyer's proposed bill, but every effort to bring it to pass.

By all means urge your congressman to work for this measure. Encourage him with your voice, if you know him personally, by your pen if you can do it in no other way. Let us have the parcels post!

---

Nothing really upsets the calm, self-satisfied serenity of the pessimist, when he is fixed in his belief that the country is going to the demnition bow-wows, so much as to encounter a real optimist who is everywhere everlastingly soaking up faith and hope and more optimism.

---

#### GETTING READY FOR STATE LEGISLATIVE WORK

---

Our very zealous little friend, *N. A. R. D. Notes*, comes out with its usual weekly "swear head." This time it is—

"GET READY FOR STATE LEGISLATIVE WORK"

*Notes* favors some legislation which we can all heartily approve, such, for instance, as the passage and enforcement of laws which will insure the purity of the drugs to the people. That is a platform that every honest man may stand upon, and it ought to be opposed by few. It also comes out for "well-considered and effective antinarcotic and poison laws." This, too, is good, and we endorse it with all our heart.

Moreover, *Notes* favors legislation which will "weed out of the ranks those who would degrade the business by immoral and unprofessional practices," and this again should have the hearty approval not only of every physician but of every honest druggist in the country. No physician can, and we think no physician will, oppose such legislative measures as these, whose purpose is the betterment of our two professions.

This is entirely different from the legislative program which has been urged upon us by many of our druggist friends and which, we regret to say, *Notes* has from time to time endorsed, either openly or by the silence of consent. We refer to the proposal to prohibit the dispensing by physicians, except in so-called cases of "emergencies." We have repeatedly stated how we stand on this question and we wish

to emphasize again the importance of the physician keeping his eyes open and being wide-awake to his own interests. There is no great danger that our rights will be seriously impaired, if we are wide awake, but if we are careless and willing to let things go by default, then look out! Within a year or two we shall have a pretty crop of special-privilege laws springing up in one legislature after another all over the country. In the words of James Whitcomb Riley, "You'd better watch out."

---

What makes all doctrines plain and clear?

About two hundred pounds a year.

And that which was proved true before

Prove false again? Two hundred more.

—Butler

---

#### BENJAMIN RUSH ON THE LIVER

---

Among other good things in the last issue of *The Kentucky Medical Journal* we note a communication in which a physician quotes an original letter by Dr. Benjamin Rush, in his possession. This letter is dated December, 1810, and gives an excellent idea of medical practice at that time, at the hands of the man who certainly stood at the head of the profession of the United States in his day. As professor of Practice in the University of Pennsylvania for thirty years, Dr. Rush exerted an influence over the practice of his day, and since, that has been perhaps only equaled by that of his successor, George B. Wood.

Dr. Rush opens his letter with the remark that a diseased liver generally brings the stomach into sympathy with it. His most powerful remedy for this organ is calomel, one-half to one grain three times a day, guarded by opium to prevent purging. He continues this until the gums are touched, lays it aside until the mouth is well, and resumes, repeating this process two or three times until there is no longer any reason to believe that the liver is obstructed.

Meanwhile, for the distressing symptoms of the gastric malady he recommends remedies palliative and radical. Among the former he enumerates magnesia, sal soda, lime water and milk, with a little laudanum

before meals to enable the patient to retain food. He also speaks of ginger tea and finely powdered charcoal.

His radical remedies are solid foods taken at short intervals and in small quantities with as little drink as the patient can be restricted to. He mentions the curious fact that food of somewhat difficult digestion often relieves a diseased stomach more than food which soon passes out of it, and goes on to recommend that beef, mutton, wild fowls, venison, fish, oysters, salted meat, and salted fish, should be tried in succession, with dry or toasted bread or biscuit, and no other vegetable matter. If all these disagree with the patient, he is not yet at the end of his string, for he then recommends a trial of rennet whey, well-boiled turnips or potatoes, mush of various forms, and above all, rice. The chief drink is to be toast water, with possibly a little porter and water, or claret and water. To assist the diet he recommends five grains of iron rust with an equal dose of ginger to be taken with the calomel. If this be offensive to the stomach he gives five grains of tar made into pills with flour. Again, if the above does not answer, he suggests nitric acid. To keep the bowels gently open is necessary, and for this he recommends the tincture of rhubarb.

He suggests quiet exercise in moderation—nowadays we say "passive exercise." He speaks of the value of blisters applied over the region of the liver, warns against taking cold, and winds up with a little postscript in which he remarks that his usual fee for a letter of advice is ten dollars.

There is a good deal in this letter which cannot be improved upon today, and we very much doubt if, in spite of all the numerous advances we have made in the art of diagnosis, and the multitude of new remedies which have been placed at our disposal, we get any better results than did Benjamin Rush a century ago. We have not yet found anything better for the liver than calomel; and speaking of tincture of rhubarb, the writer will say that following the precepts of Niemeyer, he has given many hundreds of doses of this remedy with most



excellent effect; in fact, only laying it aside when the laity had become educated so far as to demand something less nauseous to the palate. Nevertheless, when the pleasanter remedies of the day prove unavailing, he still has recourse occasionally to this ancient medicament, and nearly always with benefit.

---

I owe all my success in life to having been always a quarter of an hour beforehand. —Lord Nelson.

---

### AN IMPORTANT WORK ON THERAPEUTICS

---

Readers of Dr. Thomas J. Mays's article, which appears in another section of this journal, will be interested in knowing that Dr. Mays is now engaged in the preparation of a work on Therapeutics, which not only departs widely from the beaten path, but which endeavors to place the administration of medicaments upon a far more sound scientific basis than is the case at present. A perusal of his study of "Antipyretics and Antiseptics" will give something of an inkling of the line of thought to be followed out. From a brief resumé of the scope of this work, with which Dr. Mays has favored us, we are able to present below an outline of certain important principles, upon which the Doctor believes the relationship between the action of physical agents and the human organism depends. These principles are as follows:

1. That medicines act like physical forces.
2. That the properties of medicines depend largely on their molecular constitution, on their elective action, and on the quantity which is administered.
3. That medicines in minimum doses have one effect, and in maximum doses they have another effect, not only in degree, but in kind.
4. That medicines have in many cases elective affinities for certain organs and functions.
5. That medicines in minimum doses stimulate and reinforce physiologic forces.
6. That medicines in minimum doses directly antagonize the effects of forces which are inimical to health.
7. That medicines overcome the effects of disease-forces in the same manner as one physical force overcomes another.
8. That medicines in maximum doses depress and restrain bodily forces, whether healthy or diseased.

9. That medicines endowed with the greatest poisonous activity contain a relatively large proportion of nitrogen.

10. That medicines which are endowed with the least, or the lesser activity, with very few exceptions, contain no nitrogen.

11. That medicines which contain nitrogen have a special action on the nervous system.

12. That medicines which do not contain nitrogen have, with very few exceptions, a general action.

13. That inorganic medicines with a heavy molecular weight, or organic medicines, with a relatively large proportion of carbon and hydrogen, and with freedom from nitrogen, act largely in virtue of their heavy molecular weights, and in maximum doses, as a rule, are general depressants or general antipyretics or antiseptics.

14. That organic ternary medicines with a relatively low proportion of carbon, hydrogen and oxygen are general stimulants in minimum doses.

15. That organic nitrogenous medicines with relatively high proportions of carbon and hydrogen, and with comparatively small proportions of nitrogen and oxygen, act on the nervous system, and in maximum doses have a central depressant action, while in minimum doses they have a stimulant action on the nervous system.

16. That, independently of any physiologic knowledge of the action of many remedies, their boiling point is an indication as to whether they belong to the stimulant or to the depressant class of agents.

In Parts I and II the therapeutic agents are classified into the following physiologic groups: Constructive agents; chemical stimulants; mechanical stimulants; nerve stimulants; respiratory stimulants; circulatory stimulants; digestive stimulants; pancreatic stimulants; lacteal stimulants; uterine stimulants; gastric stimulants; intestinal stimulants; hepatic stimulants; urinary stimulants; counter-stimulants; nasal stimulants; sweat stimulants, general mechanical depressants: antiseptics; cerebral depressants; musculoneurothermal depressants: antipyretics; neuromusculothermal depressants: antipyretics; sensory depressants; motor depressants; circulatory depressants; respiratory depressants.

Part III is devoted to clinical therapeutics, in which the above principles are applied from a chemical standpoint.

We feel sure that readers of CLINICAL MEDICINE will, like ourselves, await with eagerness the appearance of this book. It is based upon no pessimistic view of medicine, rather upon the conception that the faith of the fathers was built upon a reasonable, if not always rational, empiricism. Every earnest effort to build up the art of therapeutics, to render it more scientific and rational and at the same time more practically helpful deserves not only the warmest commendation but active finan-

cial support. Keep your eyes open for this book—and when it comes out, get a copy.

#### A STATE JOURNAL "SYNDICATE"

An article in our excellent contemporary, *The Indiana Medical Journal*, calls attention to the passing of the old *Fort Wayne Medical Journal*, which for more than twenty-five years has been the organ of the medical profession of one part of the state. The editor of this journal, Dr. A. E. Bulson, Jr., is to become editor of the new state medical journal which is to be published in Indiana. In discussing this important change, the editor of *The Indiana Medical Journal* says that the new journal will be patterned after the general style of *The Kentucky State Journal* which has done so much for the profession in Kentucky.

This is interesting!

In this connection the following quotation is of decided interest: "Moreover, by banding together, the state journals are enabled to secure the same advertising solicitor for several state journals, and for the national *Journal*, thus save expense, and advance the commercial and financial field of the state journals, and so establish properties, pay the various officers suitable salaries, buy supplies by wholesale, and produce similar products in size, style and quality, but marketing them in the various states where they are printed. In these days of securing commercial efficiency by combination, the establishment of state journals makes a strong appeal, and with the guidance and experience of the national *Journal*, with which they are affiliated, there should be no more doubt of their financial success than there is of a Hearst syndicate of newspapers."

This is another interesting outline of the program, which seems to be to create a trade-unionized profession. Not only will the journals of the profession be syndicated and run into the same mold, built after the same pattern, but we can assume that they are to reflect the same ideas and on occasion print the same stuff, especially if that

stuff has to do with the carrying out of the peculiar plans of, and the personal aggrandizement of, certain men. Are we to assume, also, that it is planned for our unionized profession to go into the buying and marketing of medicines, the publishing of books and, of course as well, the making of surgical instruments and possibly even of automobiles? Certainly this would be organization with a vengeance!

Under the guidance and enterprise of the national *Journal* we are sailing along at a merry clip—straight forward to that socialization of our profession idealized by J. Medill Patterson, J. G. Phelps Stokes (and wife) and W. D. Haywood. If we can also look forward to a uniformity of idea and the universal acceptance of whatever our legislators-to-be may designate as "truth," then, ah then! the millennium will be here.

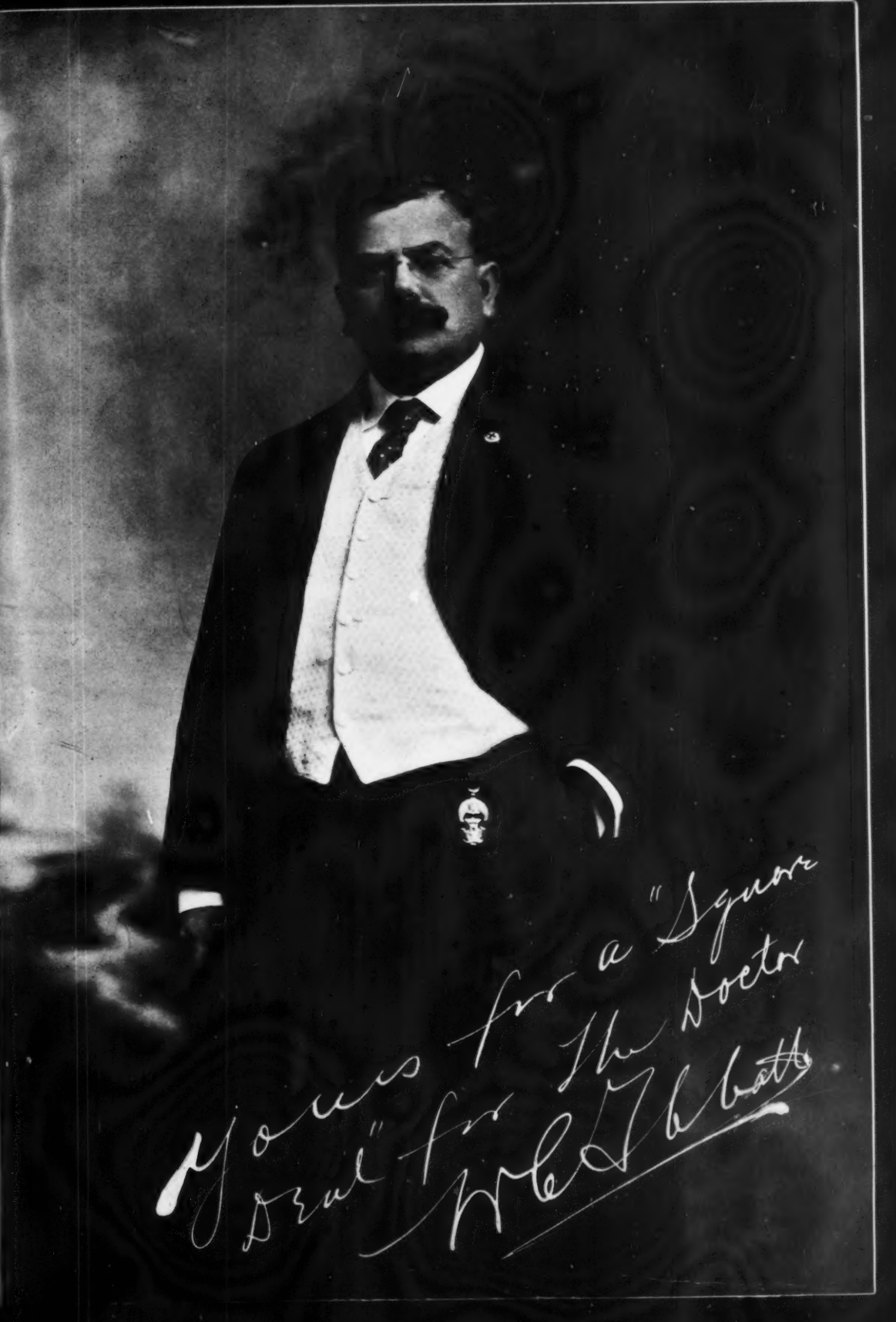
#### FRIENDS AND ENEMIES

Nothing that a man can gain by carrying on an acrimonious war with another man will compensate for the injury to his own being by nursing the spirit of revenge and hatred in his heart. The evil things men say of you only do you harm in the minds of the people whose opinion of you is such that they believe you what your enemy portrays you—that is, men who are already your enemies. The evil done to yourself, by allowing yourself to brood over this thing and nourish revengeful thoughts, is a real evil, debasing your own soul.

Therefore, fight your own fight, do your own duties, play your own part in the game of life, and go ahead manfully, never diverted from the end in sight—if that be a noble one—by the envious attacks or evil croakings of your enemies.

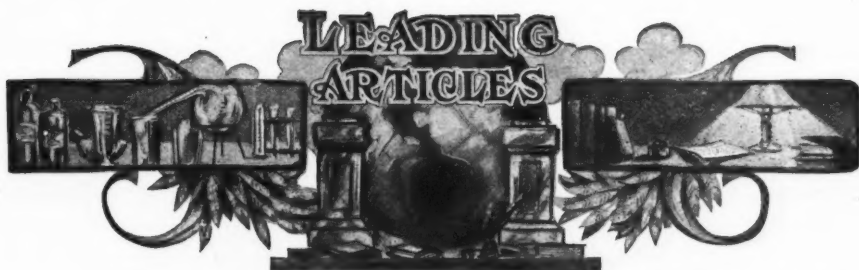
It's hard, sometimes, to philosophize about these things—to take the vile assaults calmly. We don't always do it ourselves; but we hope you do! And all this doesn't mean for a minute that we should "lie down." God forbid! It means that we rejoice in our thousands of friends—are indifferent as to the few enemies.





Yours for a "Square  
Deal" for the doctor  
W. E. L. Batt





## VOCATION OR AVOCATION?

A plea for a higher conception of our profession, nobler ideals, greater desire to serve mankind, less reverence for mere "success," less subserviency to self-seeking leadership

By GEORGE M. GOULD, A. M., M. D., Philadelphia, Pa.  
Editor of American Medicine, Author of "Gould's Medical Dictionaries" and of "Biographic Clinics"

FOR professional education and medical progress one small medical college, especially if located in a little, instead of a large, city, is worth any two big medical colleges. As a rule the greater the size of the classes, the more famous the professors, then the more untrue the teaching, the more immoral both teachers and taught. Success, ambition, politics, greed, conservatism, the dirty kind—are more certain to rule the minds and kill the hearts of the men in control of the huge institutions than those of the small ones. This is because the ambitious self-seeker and medical politician chicanes for and gets the professorship.

### *The Rich Should Help the Little Colleges*

The duty of the rich and of the endowers is, therefore, to avoid helping the unwieldy and unethical schools with their (often) ill-gotten wealth; they should help the little colleges. The more the money the less the therapeutics. Everyone who may influence a young man beginning the study of medicine should do his best to keep him out of the big college and to guide him into the small one. The greater the student-body, the worse the teaching. The more pompous

the professor, the quicker he should be laid aside. The greater the boast of "science," the more really unscientific. When professors are paid enormous salaries by lay commercial companies, their science is pretty sure to be unscience. Did you ever hear of a professor in a huge political medical college making any valuable medical discovery? If you have heard of such cases, did you ever personally know of one? And, according to some of the members of the Council on Medical Education of the A. M. A., three-fourths of the 4,000 annual graduates of American medical colleges are too poorly taught to practise medicine intelligently. The chairman of the Council says 58 percent of those who fail to pass the state boards "cram up" and pass the examination a few weeks later. Dr. Ingalls says that out of 150 American medical colleges 144 are not up to standard in their teaching. Possibly he meant the six were the six biggest colleges. If so, I beg leave to differ, absolutely.

### *The Charlatanism of the Strutting Professor*

Of all amusing and yet disgusting things we see every day the most egregious is the fawning upon and adulation of the rich sick and the sick rich by our hysteria doctors and leading consultants. Thousands of

\*An address, delivered before the Medical Department, Syracuse (N. Y.) University Alumni Association, June 11, 1907.

these pitiful patients are being "rest-cured" out of their money and health with no attempt to learn the causes of their diseases, and with fear that the known causes will become widely known. As a profession we have catered to this gallery-beloved melodrama. Our professors and big-wigs have played the game of strutting before the groundlings and of demanding many-thousand-dollar fees for cures that often never cured, and for operations that frequently were unnecessary. The medical profession should long ago have stopped this quackery of \$5,000 and \$10,000 fees. Every one of us knows it is charlatanism. The science and skill of the surgeon and the great *poseurs* is no greater, is often not so great as the science and skill of the family physician who for weeks or months or years combats or conquers the common diseases of his patient. And yet for infinitely more conscientiousness and care the family physician is paid a few dollars, when the operator is paid hundreds or thousands. If these high-chargers had a spark of professional ethics in their souls they would refuse the absurd fees until their brothers of the guild should be compensated proportionately for their service. If the pseudo-medical financiers will not choose to help their hard-working fellows, then these should tell the public what a fool it is to pay ridiculous sums for some of its jobs.

Because, also, we all know that the few reputation-seekers and money-makers are no better operators, and often not so good, as the quiet men who are winning their spurs. Many of the quiet gentlemen do not want spurs, and honors, and LL. D. degrees, and professorships.

*Never consult with the famous*, should be the motto of the honorable general physician, especially if the famous man is an extortioner, a professor, and lives in a great city. Such men are usually politicians and self-seekers who play the game, not for the poor referer of patients, and not for the poorer "clinical material." The vast majority of practitioners of today are exactly like the lambs which the Wall street lions and tigers, known regularly as bulls

and bears, have such fun and success in devouring. The brokers and the experts are like unto the "great authorities" and "professors." If you have a little hoarding to invest, do you ask the Jay Goulds and the Harrimans what to do with it? Whether in finance or in medicine, the safer rule nowadays is not, *Trust the expert*, but is, rather, *Distrust him!*

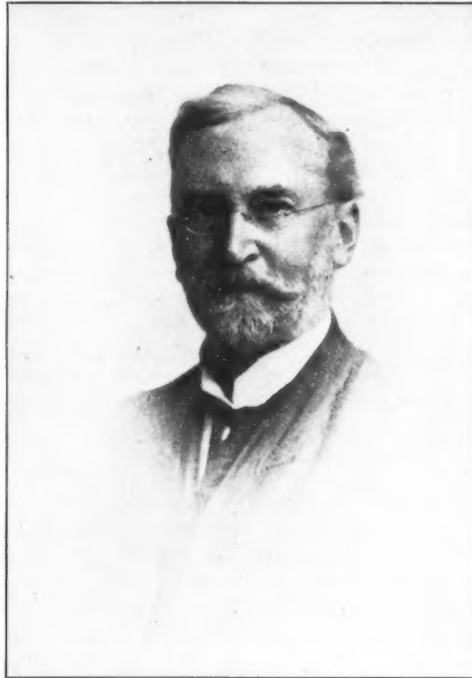
### *The Degradation of Specialism*

Especially as to much specialism! Deeper every day in degradation fall the neurologists, ophthalmologists, gynecologists, genitourinaryists. Should not the alienists as a body be examined by a special commission *de lunatico inquirendo*, appointed by sane murderers, to determine their mental condition, and particularly how far financial motives govern psychiatry? Did a fashionable neurologist ever do anything for a patient except to name or misname his disease, and humbug him? Did official orthopedics ever prevent a case of lateral spinal curvature, or cure it while in its functional stage? When organic, it is glad to try to cure it, but it never then succeeds in curing. Would you trust any patient with evident and glaring eyestrain to the "leading ophthalmic surgeon" of any large city in the United States? What right has the gynecologist to set up for himself? General surgery and gynecology, even as defined, have constantly overlapping spheres. What terranean or subterranean reason is there for the existence of the gastrologist? Is there a book on gastric and intestinal diseases which says a word about the chief cause of these diseases? And yet Professor Musser—is there better authority?—asks, "Who has not very often seen these diseases cured by the relief of eyestrain?" And the G.-U. man—well, one may not speak of him in public! And one cannot speak of him in private. Should not the general physician know about the diseases of the skin, at least as much as the dermatologist now knows? For a generation the most successful, the most scientifically and therapeutically successful proctologists are quacks, each making a hundred thousand

dollars a year, and their patients never begrudging them their fees. That is at once very solemn and very funny truth.

Such things arouse the question, Is it wise to have killed the family physician? If you take from him all minor and major

pointing-finger, at the cross-roads? [Why not have a printed form to mail or hand to every patient: "For diseases of the digestive organs consult Prof. Blank of your nearest city; for every possible and impossible surgical ailment the great operator



DR. GEORGE M. GOULD

surgery, all gastric, dermatologic, laryngologic, ophthalmic, gynecologic, neurologic, psychic, proctologic, obstetric, venereal, and laboratory diseases what is left the poor devils which the medical colleges are turning out at the rate of four thousand a year? The answer is both amusing and amazing: they are simply of use as referers to the specialists and leaders. Of what advantage a sign-post that walks? Why not cut off the doctor's hand and nail it up with the

So-and-So; if the child squints, can't study, or has anything whatever the matter with it, get its eye-muscles cut by Tenotomo Maniac, or buy a pair of specs at the department-store, or of the Eyes-Examined-Free man; for hysteria there's nobody equal to Blank, the rest-cure man; if you are a paranoiac go to the great witness of the last murder trial. If you have nasal and sinus-troubles, get your forehead bored, your turbinates removed, or your deflected

septum straightened, by Noseyman; if you have headache get some phenacetin at the soda-water fountain." And so on. How is the family physician to live as a mere sign-post? In the first place, the specialists would say, "It is not at all necessary that he lives." Secondly, that riddle has been solved long ago: if the fee is sufficiently large, may it not, asks Chicago, be "divided?"

When the general physician gets in deep water, when in doubt, he should of course ask for a consultation. But as surely and as a rule let him beware, and warn the patients' friends to beware, of the famous far-away professorial consultant. And before any consultant is engaged let it be understood by all concerned that the consultant's fee is to be in some sort of relation to that of the attending physician. If the consultant will not consult, gratis, in a charity case, let him never be called in when the rich patient's life is at stake.

#### *Shall the Professor Pay, or be Paid?*

Indeed, is it not becoming plain that the functions of a professor in a medical college, and especially in a big one, are so onerous that if he does his duty to the students and the hospital he should not have private practice? There is enough work connected with the hospital to keep him up to the mark in clinical and operative progress. He must read and study more than is usually possible for the non-teacher, and his lectures and instruction should be made over afresh each year. When I was a student we all had the same lectures repeated each year, and we knew exactly to a day and minute when that old story, effete joke, or eloquent admonition would invariably appear. Unless the professor is properly paid he cannot, of course, agree to drop private practice, but he may be sufficiently well paid. In how many colleges, even at present, do the professors pay the institution for the privilege of teaching? That's the way, in fact, that much private practice was formerly obtained, and is the sorry custom entirely dead? The unimaginable infamy and devil-

try not infrequently exhibited in the race for a medical professorship are not outdone even by our ward bosses and legislators.

Men do not do such things for the love of pedagogics or science. Within twenty-four hours after securing his professorship for which he had fought and chicaned for years, a medical politician had closed a contract with a layman whereby, because of that professorship, the professor received another salary much greater than that his medical college gave him. Sometimes the bitter personal rivalry of two teachers, for instance of surgery, results in a bifurcation of the professorship. Each professor of course must have a ponderous textbook and teach a different surgical practice and philosophy from that of his hated rival. The poor boys are sure to fail in their examinations if they answer a question as the rival would have it answered. The divided-skirt professorship of course does not last long, for the "worse" man is certain finally to kill off his colleague by some method—usually by the football tactics of hitting when the umpire is not looking.

#### *Surgery Should be Appealed to Only when Therapeutics is Impossible*

When I was studying medicine, and also while an assistant in an out-patient department of the hospital, I found my fellow-students were always interested in operations. They would crowd about the operator, while I was left with the patients who had pain or organs acting badly; functional diseases did not interest them much. When I asked what caused the surgical disease I was stared at as if I were "cracked." When I asked if the surgical disease couldn't be prevented it was evident that I was stark mad. If it was surgical disease with its dramatic blood-and-thunder professor that aroused greatest interest, the little balance of interest remained for inflammatory diseases. These were treated and treated and treated, but if I asked after etiology and prophylaxis, I was again stared at with lifted eyebrows.

I was by no means convinced I was a fool, and I did not lose heart. My conscience kept hammering at my cowardice that



"the way to get rid of disease is to prevent it." Surgery is the despair of curative medicine, and must be appealed to only when therapeutics is absolutely impossible. So when I began practising I had a tough time of it. I did not hunger for operations, and I found the operator was often operating when it was unnecessary, and he had no care whatsoever in preventing other patients from coming down upon the operating table. He did not inquire how functional and inflammatory diseases are caused, and how they degenerate into organic and surgical diseases. I found that as I myself became interested in surgery I grew indifferent to my duty to prevent surgery. I saw my colleagues, many of them surgery-mad, writing articles, buying instruments, "pipe-laying" for surgical offices and professorships, and never once thinking of their duty to prevent patients from becoming hopelessly, surgically, and organically diseased. So I renounced surgery, except minor and constructive operations; with the renunciation, of course, went the piles of money, the secret desire to be famous, to get honors, professorships, and the rest. It was not for me to be one of "the leading ophthalmic surgeons" of my day or city.

#### *Using your Position to Feed your Fame*

Notwithstanding this and without my solicitation I was offered two hospital positions which were avidly sought by others. After accepting one, I found men were using their positions to feed their surgical fame, and that the "clinical material" of hospitals was considered as vivisection material, stuff to practice upon to turn over to the underlings if not wanted by superiors, etc. Indeed, I was advised by my superiors to have the poor dispensary patients come to my office and sit about the halls and waiting rooms to make an effect upon private patients, and the rest. Moreover, I could get some money out of the poor if I worked the affair cunningly. My answer to all that was—my resignation! And later I resigned a higher position as visiting surgeon because I found that there was here no attempt at discrimination

between the needy poor and those who could pay. I became convinced that the average dispensary patient was able to pay a small fee, many of them large ones; that the refraction work, the great vitally important thing, was most bunglingly done in such dispensaries and could not cure the patients of their thousand eyestrain diseases.

The conviction grew that physicians should do this work privately and better than in the public places; that they should have the small fees which the patients could pay; that it was money and health saved for these patients if they sought and got such service privately. The conviction became more fixed that the hospital and dispensary business is overdone, and that the profession has been foolish to encourage the overgrowth, the graft and the craft, by its negligence and participation in the abuses, and by giving its service for nothing. Thousands of physicians are struggling for a living while compelled to do poor and hurried charity work, which in reality is not genuine charity either to the receiver or to the giver. And what is true of this specialty is generally and more or less true of all others. We all know that there is a vast amount of sham, deceit, and wrong in the whole affair. There is a false and hypocritic sentimentalism masking cunning commercialism and medical politics. Clinical material is needed by the medical college for teaching purposes; but today thousands, even millions, are treated to glean out the rare or striking case needed by the professor to attract attention or get him future consultation practice. If he wanted to teach common medicine, not the curiosities and "stunners," the mobs would be differently used and those able to pay would be made to pay. The hospitals and free dispensaries now go into competition with their own graduates just being sent out. It is unjust; it is an outrage, which a higher professionalism will stop.

And it extends to many of the asylums, homes, and institutions for the defectives and delinquents. I visited a blind asylum not long ago, and the first thing I noticed



when I entered the grounds was that these "blind" ones were playing a breezy game of baseball. The batters hit the ball and the fielders caught it as well as many league players. Among the inmates I found albinos, and others who could have been given fair vision by glasses, and others who with a bit of surgery could have earned their living. Salaried men were traveling through the land to secure patients. In this and other institutions it was not the aim to make the inmates self-supporting by teaching them how to go out and make a living by their own efforts. It is not to the pecuniary benefit of the institutions to make the inmates earn their own living, but to prevent them from doing it. A teacher of deaf-mutes tells me that the schools and asylums for the unfortunates do all in their power to keep the inmates in the institutions and dependent upon charity. The truth is that all blind and deaf-and-dumb persons can make their own living independently, if they are not taught to "lie down on the community," and if they are encouraged a little to work for themselves. Blind "tincup men" by illegally parading the streets can make better wages than at honorable work, but that evil has one good at least—that of punishing the poor sillies who give them money.

#### *Common Hospital and College Graft*

We need to examine calmly the abuses of the big hospital of the big medical college of the big city. Private endowers, and the taxpayers of the city and state, are wheedled or forced to give their savings to found and keep up these institutions; and all of us know that the whole affair is largely a fraud, and that they are being corrupted for personal and selfish purposes. Do the professors charge no fees for lodgers in the private rooms? Why should a charitable hospital go into the hotel business and let rooms at \$25.00 or \$50.00 a week?

Every doctor in a large city knows that the staff members of dispensaries and hospitals are using the charity clinics as feeders of the private office, and that good incomes are secured by the trickery. Those

physicians who will not or cannot secure these hospital positions are compelled to establish private hospitals and sham dispensaries in order that they may march in the great parade of Success, formed by their professorial rivals. But, even then the majority of the profession have no share in or help from the big hospitals. So overdone is the big hospital business that large sums of their charity-money are spent in advertising for patients. In at least one state, Pennsylvania, unimaginable abuses and incredible corruption are bred by the shamelessness of the scramble for the undeserved money of the gulled public. Do you know that Quay riveted the manacles and mouth-padlocks of his vile political machine upon Pennsylvania by means of these hospitals and charitable institutions, i. e., by means of the criminal participation of the medical profession? Several hundred of these supposedly benevolent and teaching institutions have several thousand trustees—all in fact, of the most powerful, learned, rich, or influential men of the state.

The state parcels out millions of dollars a year to these institutions, precisely in accordance with the help these thousands of trustees render the Quay and Penrose machine, or exactly, at least, according to their silence as regards machine infamies. One man of these thousands of trustees once dared to raise his voice in opposition; the machine warned all the doctors, who forthwith deserted the brave opponent, and now woe to that man and his institution and the hospital of his choice. At once the succeders ask the Harrisburg ring for the millions and they do not even care to defend themselves against the following argument: There are a thousand private colleges and private charities, and a million taxpayers disbelieving in the peculiar methods of education carried on by the state-fed institutions, and deeply believing in their own or other institutions not fed by the State! Why should they be taxed out of their millions for private enterprises they do not like?

So great is the rivalry of the hospitals for this state "graft" that according to the

poorly hidden mathematics of one, by simply dividing the total number of night patients by the total number of cots, it comes out that on the average over two patients slept on every single cot every night of the year! Is there anyone who does not know that the statistics of the annual reports of dispensaries and hospitals are often a mass of lies? Even after the theft of many millions to build our *sine-Quay-non* State Capital, the ringsters will find money to reward their obedient servants.

Against this orgy of unconstitutional rottenness only one legislator—thank God there was one—dared to raise his voice in protest. On May 3 of last year Representative Reynolds said:

"Many of the bills we have passed are ridiculous. It is in the matter of giving away state money for hospitals and other semiprivate institutions that this extravagance reaches its climax. The time ought to be here when a sick woman, a room, a donated blanket and the services of a doctor are no longer the nucleus of a hospital. Yet with only this outfit you can call the establishment a hospital and come asking state aid and get it. I tell you frankly that I am ashamed of some of the bills I have introduced here to get public money, and the only excuse is that others do it. We are sowing the seeds of scandal, and I predict that unless this lavish throwing away of state funds is stopped, and that very soon, there will be added to the history of Pennsylvania a chapter darker than that which marked the corruption when the State was being looted for railroad-building enterprises."

I know of but one physician who has dared to speak against the infamy as Mr. Reynolds has done.

The modern hospital is frequently in fact not unlike an illegitimate foundling: the endower thinks he has done his entire parental duty in putting a bag of money in the child's basket and, paying no further attention to it, leaving it for the lady patronesses, wet-nurses, artificial foods, incubators, and medical men to bring up. Of course the "charity" hastens to become

very selfish and cunning, and the treatment—oh, the treatment!

The man whom the American profession seems most to honor—probably because he shows his opinion of it by deserting it—does not believe in treatment, at least any that can cure; he never cured or cared to cure a patient of disease; he amused himself and patients suffering with gallstones and with astigmatism and floating kidney, by treating them with wet-packs, learned lectures, and more learned textbooks; denied at first and until impolitic that the stegomyia had anything to do with yellow-fever—and so on! Of what use is the medical profession if there is no cure for any disease? Indeed, for a long time, now, the Medusa-head of therapeutic pessimism has been peeping out from under the wig of anatomic pathology and medical atheism.

For a generation the surgeons have been sneering at everything but surgical disease; the pathologists have long ago settled it that there is really no functional disease, and that it is only our microscopes that are at fault when we cannot discover the bug of senility, the lesion in foolishness, or the tumor in megalomania. The gastrologists practically admit that the surgeons should get their patients after they have thoroughly pumped their stomachs and purses. But at last the neurologists have come into the open and have flung away their wigs. Snakes instead of hair are not pleasant to look upon! "Neurasthenia," it seems, has "passed," and with it hysteria—all the thousand forms of habitual peculiarities in many women and children. Such patients, one and all, are simply insane, and that's an end on't! What a world, when all but a few Americans will be in asylums commanded by the only sane men, the neurologists! And nobody curable! One-fourth or one-half of all the asylum inmates will have lateral spinal curvature, but the orthopedic surgeons will smile when you suggest that the etiology is known, and the prevention also. The superintendents of the thousands of epileptics will be "disappointed" if a possible cure or method of prevention is suggested. Forty percent of

all inmates will be enduring the agonies of migraine, but the moribund ophthalmologists will wink at the decadent neurologists, and tap their foreheads significantly as the refractionist passes by.

*"Leaders" do not Lead, but Oppose Medical Progress*

That the "leaders" do not make medical discoveries, that they never lead, but that they oppose medical progress and deny medical discoveries, is illustrated by the history of every step in professional progress; but chiefly by the history of vaccination. The great Royal Society, all of the official leaders of English medicine, opposed and fought Jenner when he labored to secure the establishing of the truth. But it now is clear that Jenner did not discover the immunizing power of cowpox, and that far from making the first scientific demonstration of cowpox inoculations, and of their power against subsequent smallpox inoculations, Jenner waited twenty-two years after the grand old farmer Benjamin Jesty had dared these things before he inoculated the Phipps boy. And the leaders of today laud Jenner as the discoverer of vaccination!

These leaders always make monuments for the men they themselves have first made martyrs. A national committee should be appointed to learn why we as a profession honor the living frauds, hypocrites, and bigots, and never the real discoverers until they are dead, and why we usually honor the great dead for the thing they did *not* do. The case of J. Marion Sims, martyred by the New York City medical leaders, shows that America has only dishonor for her greatest and best medical men. The leaders Hodge, Meigs, and company, succeeded in silencing Holmes as to the contagiousness of puerperal septicemia, but did Hodge, Meigs, and company ever acknowledge their crime? Men who are modest, who are not politicians and unprincipled schemers, can not, as a rule, secure medical fame and wealth for themselves or recognition of great new medical truths for their patients. Great

universities are prostituting themselves by giving all sorts of honorary degrees, for purely selfish purposes, to men without any just claim to them. If you want to be an LL. D., don't do anything for the good of medicine or humanity! Be a cunning fraud!

Let me epitomize the illustrative history of one of my patients who fainted from exhaustion. He was a poor mechanic whom the scientific neurologist ordered to the surgical operator hungry for practice and with empty hospital wards and private rooms. Jumping out of his touring automobile the surgeon trephined big holes in the poor man's head but found nothing to justify the prearranged diagnosis of Jacksonian epilepsy; the neurologist and surgeon rendered dozens of bills, even for the nurses, and for the cot on which the man lay, and they got a thousand dollars from him; then turned him adrift uncured, with the insult, "We have done our part, it is now up to you to get well."

Another patient of mine was told by a neurologist that she had "neurasthenia," and was sent to a sanitarium—and have you ever considered the wondrous growth of these hundreds of sanitariums? But a pair of glasses cured her in a day. The "science" of this neurologist teaches him that there is no such a thing as a reflex in the human body, physiologic or pathologic.

Another patient was charged several hundreds of dollars by an ophthalmic surgeon for a little operation. The poor farmer had ten acres of land, which he sold to pay the surgeon his fee, and then he became a day workman and finally he and his family went to the dogs. A young lawyer without income or bank account was charged by a praying surgeon \$600.00 for an operation, and \$50.00 each for four assistants. The four assistants never saw a cent of the money. This great man has dozens of LL. D. degrees, presidencies and professorships and he advertises in all the newspapers!

Another illustration is this: A world-famed surgeon was to read a wonderful paper on a miraculous operation at the great

medical association held in a distant city. The famous one had given copies of his paper to the daily newspapers of his city with his photograph, etc., to be reproduced the next morning after its reading before thousands of doctors in the far-away city. Something happened so that the reading of the article had to be postponed until the next day. At once the telegraph wires were heated with messages to postpone the newspaper publication for a day. It was too late, and so the newspapers had to say that they had just received a full account from their correspondent of the following marvellous discovery divulged to the scientists of X—the day before, in a paper, of course, not read. The fun was frightful—for the great professor's enemies! One of these, a great LL. D. and rival, got hold of the facts, wrote up a full account of the scandal and published it to the medical world. But, most cunningly, he published it anonymously. To-day these two great rivals entertain each other with profound bows and play into each other's hands just as if they didn't hate each other with adorable bitterness.

The end of the beautiful story is that the proposed miraculous operation was like the LL. D. proposer—a fraud. Not one of you could ever guess what it was. But the patients! Oh, *they never were considered*. A rich patient recently paid, in all, some \$20,000 to have removed, what one of the consultants told me was “as pretty a little healthy pink appendix as he had ever seen!”

Now, the men who do these things are they who make of medicine an avocation. But all good physicians feel it to be a calling, a vocation.

#### *The Remedy Lies With You*

You men with a medical vocation, you who loathe these things I have described, outnumber the men who prostitute their profession a hundred to one, and yet by your negligence and even by your sins of commission you authorize and encourage the abuse. It lies with you whether these consultants are consulted or not. And

whether you buy the medical journals and books they control and own and write!

This vogue and false reputation of the false leaders comes largely from your carelessness as to your medical-organization officers and cliques, your paying your money to misleading leaders and self-publishing publishers of journals and books. What possible excuse is there for the torrent of textbooks by professors and rivals on “Practice” and on every imaginable rehash of old or stolen medical knowledge which the egotism of authors and the cupidity of publishers pour forth? It is you who buy these thousands of useless books, most of them at double the price you should pay for them, even if they would do you good, and help you to cure your patients. Do you know how many of them are literally and absolutely stolen? I could point out to you books every line of which is stolen even to words, sentences, and surely as to ideas.

I have suffered atrociously from the thieves and know the facts. Whole articles and books and “systems” exist, not a page of which was written, and often not read, by the men credited with the authorship. One recent pompous article in a big book on an immensely common nervous disease was old medieval stuff recooked by a penny-a-liner, and one sentence only, of hatred for a rival, was inserted by the “author.” In these criminal “textbooks” and “systems” much of the best literature is not only not epitomized, it is not even mentioned. A hundred or a thousand articles and reports not suited to the authors' prejudices are as calmly ignored as if science and morality had no part in medical literature. Another illustration: A purse of \$10,000 was recently made up by the medical admirers of a great medical man, because of his supposed authorship of a great literary work. But this work was not done by the assumed author, who pocketed the \$10,000 of poor doctors, and then left the medical profession for good and all.

And of all the useless books in the world the most madly foolish are the many-volumed composite “systems” which you buy, got up for the benefit, pecuniary and repu-

tational, of the sinecure-hunting, popularity-mad, chief editor, next, by reflection, of that of the me-too departmental editors, but all surely for the sake of the rich lay publisher. A year or two ago the chief editor of the latest and worst of these composite systems told a friend of mine he would not write an article for less than \$10 an octavo page, and that any doctor is a fool who writes for less than that. He now secures a host of "fools" to write for him at the fool-rate, while he takes hundreds of dollars a page, and all the fame you will give him. In these systems you will find little to help you practise medicine. Their knowledge is largely the false knowledge of the past, in which practical therapeutics—your great concern—is ignored, and the old anatomic pathology, long since gone to seed, is reemphasized; while the pathology of the living, crippling, amazingly common functional diseases is utterly misstated and ignored. *Not* curing the millions with these functional diseases is the source of the incomes of these leaders.

In the latest and worst of these systems the international editor-in-chief says that the best protection against quackery would be for every practitioner to have a laboratory in his office. Every quack in the land will grin with delight at that lie—grin from ear to ear! You who try to cure functional diseases and prevent organic ones know how the quacks are beating the leaders.

Did you ever think of the astonishing fact that the dead patient cannot be made alive and healthy? That functional disease precedes and causes all organic disease? That the pseudopod preceded all anatomic pods? That your work is almost entirely with the functional ailments, the headaches, belly-aches, neurasthenias, dyspepsias, constipation, nervous disorders, -algias, and -itises, etc., of a thousand kinds born of physiology and hygiene gone slightly wrong? *Why the interest in the hopeless endproducts, and the textbook indifference to the curable functional disorders, which, neglected, end upon the postmortem table?*

In the books and articles of the great editors and leaders you will find postmortemism

apotheosized, and the conclusion of every page is that the end of all is either hysteria, or the surgical operation, or hopeless invalidism and death. Therapeutic nihilism is written over the gate, and the motto is, *Leave all hope behind ye who enter here.* The chief advocate of therapeutic nihilism is logically of great service to the Eddyites who quote his august authority when sued for allowing their children to die without medical service. A prominent medical journal, itself now happily postmortem, recently said editorially that every obscure gastric symptom demanded immediate gastrotomy of the patient.

#### *For Insomnia or Optimism—Try an Official Journal*

And these official medical journals—what a farce they are! If any of you are troubled with insomnia or optimism you should subscribe for, say, *The British Medical Journal*. Such journals are carried on for the benefit of the select few who arrogate to themselves a knowledge which has been outlived, a science which is almost as hopeless as that of Mother Eddy, and an egotism which outdoes that of this wonderful lady. Try to get into the columns of these defenders of the faith an article which advocates progressive advances in medicine, and see how you will be "turned down."

In our country just now the powers of a desirable organization of the American profession are being used for a most undesirable monopoly, for crushing out democratic spirit and independence, for extinguishing minorities and independent rival journals. Impertinence, bulimia of power, tradesunionism, are being fostered, and an insane howling about little evils is used to silence critics of infinitely greater ones. The worst abuse is being officially poured upon good drug manufacturers by men secretly in the secret-drug business, and who are carrying on far more degrading businesses than those derided. It is scarcely wise or logical to laud and support manufacturers who secretly put up thousands of private formulas, secret drugs, and "specialties" for the quacks, and then abuse



the quacks for selling them. And especially if the quacks sell them to physicians!

With open eyes read the official address of President Bryant, before your own State Medical Society, and note the implication, and the between-the-line protests—protests hampered and modified by many and powerful necessities and limitations. When you have finished this reading get and read last week's address at Atlantic City of the same president. It is the most amazing mass of bombastic fudge and ungrammatical mystification. It is plain that a reorganization of the reorganization is required.

If one looks at them discriminatingly, these big medical gatherings are pretty bad and more silly. The big nonleading leaders encourage them in order to show off; the me-toos imitate their leaders; science is made the excuse for a lot of crass advertising, and worse ethics.

#### *Our Profession Needs Real Men*

What above all is needed is physicians who are not afraid of traditional prejudices and entrenched authorities, men who cannot be intimidated either by their own ambitions and selfishness or by the tyranny of conservatism and medical politics, medical societies, organizations, or fashions; men who will speak out and act as their own consciences demand upon all professional questions. It is plain that the profession is too much taking on the depraved habits of the worldlings about us, of the craze for luxury and success which has bitten the majority of Americans.

The practice of medicine is a holy calling, a vocation; the majority hold it so; the leaders, the few, make of it an avocation, the tool of "success." We must stop that sort of disgrace. The leaders have been practising medicine for success, or what is the same thing, for money. Now, the professional murderer, Orchard, has shown that for the sake of money alone he failed to be a successful murderer. Emotion and "soul" is necessary in any calling, even in Medicine, or even in Murdering. In view of the short life-length of our people, observing that for every premature death there are two

years of sickness, seeing the 10,000 of our suicides, and the many thousands of the mangled and killed by our railroads, it grows to recognition that civilization is a ferocious cannibal, mad with luxury and greed, devouring the millions of unfortunates who do not "succeed." The only withstanding forces against this glut of death are religion and medicine. The physician who practises medicine merely as a means of getting on, for money, for fame, for selfishness, and success, is a traitor to his profession. As individuals the divine command may be obeyed, that we may really find our life by losing it. It is an old, hard-worn truth that diseases are the warnings of the broken laws of ethics and physiology.

There is no punishment for suicide when the man is dead. The old pathology ignored the functional causes of death and busied itself only with the crude instruments, the terminal diseases, with which the suiciding weakling killed himself. The present sicknesses of the profession are today in their functional and curable stages, but heroic therapeutics are needed to prevent the inevitable and incurable organic diseases. The rise of the social diseases called eddyism, osteopathy, and the rest, show how far we have all gone. The luxuriant growth of crude quackery outside of the profession is the direct result of subtle quackery within it; and it is because we have not heeded the command, *Physician, heal thyself*, that we have become so infested with the parasites of unfaith-cure, bone-punching, and unchristian unscience.

#### *Our Legislative Failures*

Did it ever come to your mind that our long, great and valiant fight for medical registration, state boards of examination, four-year courses, for medical organization and dignity, has ended in utter failure? We are just where we began twenty years ago. Then the Sick Citizen had a choice between quacks and regular practitioners and the law could not be invoked to "protect the citizen from greed and ignorance." To bring about registration, etc., one large

school of irregulars had to be taken into the legal fold. There was much nausea on the one side, much jubilation on the other. How is it now? The law now demands the legalization of osteopaths, and eddyites, and Albany (not Heaven) only knows what other forms of Healers and healers.

"Progress," then, is steadily giving the former illegal and despised quack a legal and professional status. Isn't that an atrociously funny result of the generation-long demand for professional exclusiveness and registration? But only sillies can fail to see that it is leading to the right of the citizen to choose his doctor, or his quack, or his murderer, as he pleases. And nothing in earth or heaven can prevent this democracy.

*The Increase of Quackery Inside the  
Medical Profession.*

There are so many quacks within the profession that a sick man must choose carefully if he sticks to the regulars. The law has validated the larger choice, and trades-unionism in our ranks has killed our own courage to withstand the demand for the legalization of quackery. Riotous individualism, whether good or bad, is simply a fact! So the science of the textbooks, of the "leaders," and of the laboratory can help us little when it comes to the morbidities of our professional life, and of our patients.

We find in our extremity that professionalism, the new form of deism called LL. D.-ism, cannot help us, and that the patient is always an individual; his disease, unlike that of any other, and the turgid and glittering rhetoric of the self-advertising parade-writers is not helpful to us. The modest, dutiful general practitioner, especially of the smaller cities, towns and country, is likely to stand in awe of the famous city authority with sesquipedalian verbiage and titles. Professional enlightenment and progress needs that the general practitioner shall rid himself of that awe and shall demand back from the specialists the clothes of which he has been robbed—not only his cloak, but his coat, his waistcoat also, and trousers, possibly, which have gone city-

wards in too reckless haste. The general or family physician is still in the majority, and he is the backbone of the profession, and the hope of curing our pitiful professional scoliosis rests with this true orthopedist.

The entire ten commandments of the professional decalog are daily smashed to smithereens by the professors and LL. D.'s, and there is little to be expected for the dignity of our vocation except in the native vigor of mind and honesty of heart of the family physician. Abolish most specialism! Live to your ideals and cure your individual patient in your individual way of his individual disease. And of all unholy stupidities do not believe there is no cure. *The cure and the prevention of disease, of most all the diseases which curse our world, is possible. Perhaps not by the methods you suspect or have tried, but still, really, by some method.*

*If You Believe No Disease Curable—  
Get Out!*

There are two ways of committing professional suicide: The first by therapeutic pessimism, the method of the old pathology, the degraded neurology, the criminal old surgery, and the unspeakable old ophthalmology; and these have almost brought medicine to death, have resulted in a state of mind in the community in which millions of people only wish to learn what the medical profession hates in order that they may love it. Your "leaders" are murdering your profession. If you believe no disease preventable and curable, for man's sake get out of medicine and go into the gambling, bucket-shop or politician's business. The second method is actually to prevent and incidentally to cure disease so that sickness will disappear. This last is the physician's way to find his life by losing it, and is a glorious way of living and dying. The causes of the diseases which produce the larger part of the sickness, misery, poverty, crime, and early death of the world are now known. But the self-made, and self-elected, leaders of the profession know nothing of these causes and hate with bitter



hatred those who do know these causes, and who know that most all diseases are preventable and curable. "Distrust your leaders" is the beginning of medical wisdom. Look out for yourself, disabuse your minds of prejudices, and "laws," and "rules," and individualize every case of disease you have. Never generalize, as the poor "scientist" does, but study each single case as if no other existed.

### *Cling to the Idealism of Your Youth*

Over all and above all, cling to the ideal of your profession being a calling, a vocation, from a source higher than the love of success and fame and money. Cling to the idealism and religious purity of your youth, to the love of your suffering fellowmen which lingers in the silent depths of your soul as all that makes your soul valuable and breeds its immortality. If you do not love your patients you will not cure them. Sympathy and kindness is the condition of therapeutics. These professors and ambitious self-seekers are mostly either hypocritical or outspoken atheists. There is no god that will authorize diabolism in the name of medicine or humanity. So these scamps who practise medicine for themselves rather than their patients must get rid of gods and God. If the love of God and the belief in Him has gone out of your heart, the love of your fellows and pity for their lot will swiftly follow. Without religion, without compassion, there is no abiding medical knowledge, no lasting art of healing. Most of these neurologists with their sneer of "hysteria", when they cannot cure, and of "neurasthenia", when they do not know, most of these laboratory and ultrascientific men, are materialists; they have no ideals, and real self-sacrifice is to them impossible; most of these alienists who sell their psychiatry for an advocate's fee, most of these surgeons who would operate even for "operation *per se*,"—plus a big fee—a majority of these leaders are materialists whose souls or psyches deny psychic things in their patients; their real failure is as certain as that physical disease

springs usually from psychic causes. These pseudo-professional men are living on the inherited virtues or soul-wealth of their genuinely professional ancestors. Every act and desire of their life is cunningly selfish instead of openly benevolent. The most depraved physician I ever knew did the most praying and gave the most money in supposed charity.

### *The Prayer of Maimonides*

Some seven hundred years ago a non-christian physician was also a prayerful, but genuinely religious man. His heart and mind were fervent with love of his brother-men, and with compassion for their physical woes. He was also most zealous in science, eager to unlearn his errors, watchful for new truth, earnest in wishing to add to the vast body of impersonal objective truth called Science—Science which shall finally, Science which can only, heal the mighty patient, Humanity, of its ills. Hallowed by the impassioned spirit of Holy Medicine, this noble physician thus invoked his God, our God, and the God of true Science:

"*Thy Eternal Providence,*" said Maimonides, "*has appointed me to watch over the life and health of Thy Creatures. May the love for my art actuate me at all times; may neither avarice, nor miserliness, nor the thirst for glory, or for a great reputation engage my mind; for the enemies of Truth and Philanthropy could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. May I never see in the patient anything else but a fellow-creature in pain. Grant me strength, time, and opportunity always to correct what I have acquired, always to extend its domain; for knowledge is immense and the spirit of man can extend infinitely to enrich itself daily with new requirements. Today he can discover his errors of yesterday, and tomorrow he may obtain new light on what he thinks himself sure of today. O God, Thou hast appointed me to watch over the life and death of Thy creatures; here I am ready for my vocation.*"

# THE STORY OF THE CLINIC

How and why it came into existence, its marvellous growth and the reasons for its success, by the man principally responsible for what it is

By WALLACE C. ABBOTT, M. D., Chicago, Illinois

I HAVE been asked by members of the "cabinet" to tell briefly, in this our "Special Progress Number," "The Story of THE CLINIC." Should I go fully into the details it would take every page of this issue, and even then "the story not half told"; and although it would be a labor of love, I must not sacrifice that greater part of "the story" which is told by my friends—many of them of long years' standing—on other pages.

The difficulties surrounding this task are obvious. They are those of a man who is still alive and kicking (and I have the reputation of being rather a lively kicker) "rising in meetin'" to praise his own good works, for to give the facts fully I must needs talk of myself. This resolves itself into an introspection of the introspected—hence my hesitancy! But believing that "whosoever tooteth not his own horn, the same shall not be tooted," and putting all modesty aside (of the possession of which, to any marked degree, I was never accused) I speak in general terms of things which many of you know, leaving you to supply the "filling" where it is needed.

To connect THE CLINIC and, with it, alkaloidal medication with the very first known and recognized movement in America takes me back to years and circumstances which in the hurry of life have almost been forgotten, and these I will give in the words of the chief actor, my honored, long-time friend and now close confidential associate, Dr. W. T. Thackeray, who in response to my invitation to tell the story to suit himself, says:

## *Dr. Thackeray's Story*

"In 1888 (I think it was) I was in St. Louis attending the meeting of the Ameri-

can Medical Association, held in that city that year. While there I met a Dr. M. E. Chartier, who called my attention to a medicine case which he had, the contents of which, at first sight, appeared to me to be homeopathic in dosage, and I so stated. However, he asked me to dissolve in my mouth one of the granules, which he took from one of the bottles, and upon doing so I was made positively aware of the fact that I had taken a dose of aconitine, and I admitted the fact to him. He then remarked, 'Now, Doctor, I shall be pleased to show you the further power of these little granules and ask that you now dissolve in your mouth another one which I herewith give you.' I complied with his request, and in probably two or three minutes saliva was in evidence as well as a decided sudorific action all over the body, indicating jaborandi effects, both of which I recognized without difficulty. I was then informed that I had in the first instance taken aconitine and in the second pilocarpine.

"He then outlined to me the Burggraevian idea of the use of active principles in therapeutics. The idea appealed to me seriously, and before I left St. Louis I had purchased from Dr. Chartier his machinery and such stock as he had on hand, with the idea of presenting them to the, then managers of my employers, Parke, Davis & Company of Detroit. This I did at a later date, but was met with the remark: 'Doctor, we believe in the idea which you present but the success of this system means the death of the galenicals, and you know our money is in them.'

"Now, as I had invested my own money in the purchase of Dr. Chartier's outfit, I saw that my only plan was to enter into

the manufacture of these goods myself, and as a consequence I interested a few Chicago physicians, notably Dr. C. C. P. Silva, and we organized what was known as the Metric Granule Company, now long since dead. This company was fairly successful during the first two years of its existence, during which time I had the pleasure of interesting Dr. W. C. Abbott in the work and entered into a contract with him to manufacture, among other things, granules of the sulphocarbolates for his personal use. However, about this time some dissensions arose in the company and I sold out my interest. Dr. Abbott, calling upon the Metric Granule Company for the fulfillment of my contract with him, was met with the statement that the company declined to fill the contract at the agreed price, and Dr. Abbott determined, then and there, as I have been since informed, to go into the manufacture of the remedies on his own account.

"After quitting the Metric Granule Company I entered largely into the manufacture of granular effervescent salts and later added a line of alkaloidal granules. During this last venture I recognized the necessity for a journal upon alkaloidal medication and decided upon the name, 'THE ALKALOIDAL CLINIC,' which journal was first published in 1891 or 1892, there being but six issues distributed by me.

At the beginning of 1893, the financial panic forcing me out of business, I accepted the position of Division Superintendent with the World's Columbian Exposition. During my term of office I met Dr. Abbott on the street one day and he asked me what I intended to do with 'THE ALKALOIDAL CLINIC.' I told him 'nothing,' that if he wanted it and would publish it, it was his. The rest you know.

"Varied experiences have been my lot since my meeting with Dr. Chartier in St. Louis up to the present time, when I enjoy a position of trust and honor with my friend Dr. W. C. Abbott, to whom during the whole period of his most successful business career I have lent what aid and information I could for the benefit of alkaloidal medication.

My pen, my brain, my physical being have been and are still at his service, and while dictating these lines I am preparing for a tour in Europe in his interest as well, as I believe, in the interest of the medical profession of America."

This puts you in possession of some in-

teresting facts concerning the early history of alkaloidal medication in America. Some time prior to this, I have been credibly informed, "dosimetry" was first brought to the United States by J. Pierpont Morgan. While in Paris the great financier had been treated for a troublesome illness, by a physician who had adopted Burggraave's ideas



W. T. THACKERAY, A. M., M. D.

Aside from his connection with the history of the alkaloidal movement Major Thackeray has had an interesting and adventurous career. He is a civil war veteran, was for many years a medical officer in the U. S. Army, and served as Chief Surgeon in Don Carlos' army in Spain. The uniform he wears is that of "Uncle Sam".

and methods. Morgan was so impressed with the advantages of the method that he proposed to bring it to America. Accordingly he purchased the copyright of Castro's book on Dosimetry, had it translated, and in connection with Vanderbilt and Appleton published it here. When this was done, they found that instead of a work calculated for the laity it was strictly a medical book,



MY FIRST "STAFF"

Taken on the back porch of my house which, 22 years ago, was laboratory and editorial sanctum, as well as home and "the doctor's" office.

designed and suitable only for the medical profession. The book had some circulation, but its success by no means met the anticipations of the gentlemen who produced it.

Several attempts were subsequently made to introduce "dosimetry" on this side and to popularize it with the medical profession. An agency of the French manufacturer, Chantaud, was established in New York City, and for some years they published a small journal, mainly a reprint of *La Dosimetrie* in the French, and called "*The Dosimetric Medical Review*." Following the French, several firms endeavored to manufacture and introduce the dosimetric granules in America, but for some reason or other, or until I launched my effort, these efforts ended in signal failure.

In 1894, as Dr. Thackeray has related, I found that the way was open for the use of the name I desired for a journal advocating alkaloidal therapy, "THE ALKALOIDAL CLINIC." I had been making the granules for some time before this, commencing in the smallest possible way, advertising similarly, feeling my way with the utmost caution. Trying to avoid the mistakes made by my predecessors who had tried and failed. Instead

of preaching in a didactic way to the alleged leaders of the profession, I went directly to the profession itself, to the rank and file, to the men who were doing the work in the clinical field.

#### *Something More Than a "Business" to Me*

To me alkaloidal therapy was always something more than a "business"—a commercial enterprise. It was a great therapeutic movement. I felt it to be my work—my "mission" in life. I tried from the very first to interest physicians in it from this point of view, to instil into their minds the fundamental ideas and help them in their application. As a result of this effort I had built up an extensive personal correspondence, and THE CLINIC came as an effort to get away from this, for time and again have I written at night, and at all times with the pen, till my fingers swelled so that I could scarcely close them. It came to a pass where I felt that I must have a better way of talking to my friends—and THE CLINIC was simply a medium for saying to the many the things which I had already been writing and talking to the few.

When I spoke to my friends about my project of starting a medical journal along these distinctive and to them peculiar lines, nearly all tried to dissuade me, saying that no one wanted alkaloidal medication, that it was iconoclastic, would meet with the opposition of vested interests, must overcome the inertia of the fixed medical orthodoxy of the times, that it would not pay—and that others had tried it and failed.

My reply to this was, "I haven't tried it, have I? I haven't failed, have I?" And when they said "No," I assured them that I was not going to fail, that failure wasn't in my makeup, the word not in my vocabulary. Of results let my work speak.

The first number of THE ALKALOIDAL CLINIC, under my supervision, appeared in January, 1894. It was a modest effort of twelve pages, the entire editorial "say-so" being confined to the first page. The contributors to this number were Drs. W. C. Buckley, W. F. Waugh, J. B. Justice, A. A. C. Williams and C. C. Stephenson; and there

were besides more than half a page of encouraging "letters from the field," from those I had made friends in the profession, in the manner already described.

For the first year or two *THE CLINIC* was "set" by a friend, who himself was struggling with a little publication of his own, in an attic room in Ravenswood; the press-work was done "down-town" and it was mailed out from my own house (which was also my office) first to some sixty doctors, who in response to my suggestion had sent me in their subscriptions confidentially. Sample copies were also sent to others.

From this small beginning, its circulation, through hard work and with the kindly helpfulness of earnest doctors in the field, has grown up, through the various phases that have been and are obvious to you all, to its present position as a leader in advanced therapeutic thought in the Medicine of America.

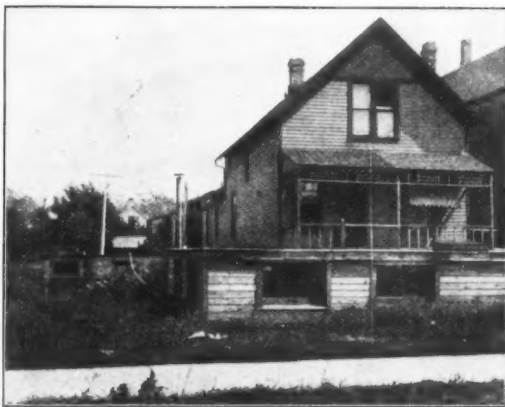
From this modest beginning the course of this journal has been steadily onward and upward. It has increased rapidly in every manner. Its pages now contain articles from the best men in the medical profession, while the "rank and file", its original supporters and even its best friends are by no means neglected, each issue containing a condensed mass of useful matter coming direct from clinical experience. Every month it becomes more and more difficult to select from the enormous mass presenting that which seems most to merit insertion and most appropriate for the occasion, most likely in all ways to aid the readers of the journal in their great work of preventing death and relieving suffering.

I have associated with me able, earnest workers in a strong force. Much credit is due Dr. Wm. F. Waugh, who contributed to the first number, then later, first as editor of *THE CLINIC*, and still later in other capacities, has been associated with me for many years; and the names in our editorial cabi-

net, as well as the names affixed to articles and correspondence in the pages of *CLINICAL MEDICINE* are those of earnest, able, faithful men who in their various situations and capacities have contributed mightily to the success of this enterprise. I am grateful to all of them—to all of you!

In the early days Dr. John Aulde contributed to the success of the journal, as did Dr. W. C. Buckley. Prof. Shaller, of Cincinnati, came in a few years later and his work still forms an important part of the literature of the active-principle movement.

For twelve years this journal was published as *THE ALKALOIDAL CLINIC*, but at the beginning of 1906 its name was changed to that which it now bears. Although first instituted for the express purpose of advocating the use of the active principles in medicine, it promptly outgrew its original design, and became identified with the much



THE CLINIC'S FIRST REAL HOME

My! Didn't we feel big when we had moved into these quarters, office and composing room upstairs, press room below.

wider field, that of promoting the use of all accurate medicinal agencies in an accurate way. We found ourselves in later years constantly endeavoring to explain to many inquirers that we did not advocate and had never advocated the exclusive use of the alkaloids in the practice of medicine. As long as we maintained the old name, people persisted in attributing to us the design of erecting a new medical sect. We have



always consistently held to the doctrine that it was the duty of the physician to use not only the alkaloids but *everything* which would enable him to better do his work, to restrict himself in no way excepting as the interests of his patients demanded; and it was in recognition of this fact that we finally assumed the broad title of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, as exactly expressive of the field we occupy.

During the fourteen years in which this journal has been in existence, we have seen drug therapeutics, which had gone completely out of practice, revive. All over the world men are now talking of this revival. The best men in the profession are protesting against the pessimism which had

From its first issue this journal has been characterized by its robust optimism, by its faith in well-directed therapeutic measures, this faith being based upon the use of therapeutic certainties as reliable as the finely tempered steel of the surgeon's instruments; and by the tremendous energy with which its beliefs have been pushed.

### *We Want What is Right*

In all things we have most earnestly sought to be right. If we were wrong, or if we did not know that we were right or wrong, we have gone to those we believed most able to help us, by no means neglecting to add to the information thus received the results of our own experience and observation, and

our own reasoning powers. We have never felt or shown the conceit of looking upon ourselves as always right. In fact, we believe that we have been humble in our own estimation of our own powers. All we have asked was that those who knew more than



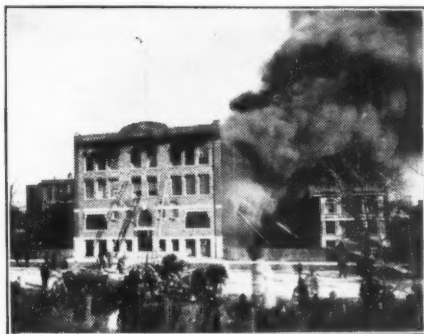
Showing our plant (the home of *THE CLINIC* at your right) after ten years of the hardest kind of hard work.

paralyzed medical endeavor, the nihilism which had reduced the physician from an active participant in the conflict to the position of a more or less (rather less) interested spectator. It is this journal, and the men who are concerned in it, who have fought this idea; and to them may be attributed the credit of having aroused that sentiment in the profession which is now steadily recovering its sway, that of optimism, of hopefulness, of earnest endeavor to do our highest duty by our patients; and that duty consists not in looking on, not in diagnosing the case and then stopping, but, along with this, in actively intervening for the benefit of our patient to the extent of our ability; this ability to be based upon a correct appreciation of the pathologic condition, and the proper application of correct remedies.

we should put us right, believing that if they were right they ought to be able to show it to those who were searching absolutely and singly for the truth, not desiring to establish any preconceived views of their own whatsoever.

The influence of *THE CLINIC* has grown steadily with every month since its first issue, until its clientele now embraces fully one-fourth of the active physicians of the United States. It has been our desire to associate every one of these with our work, to learn from each one of them what he or she knows and add it to the common stock of the entire number. We have constituted the readers of this journal an enormous collective investigation club, believing that in this way as in no other can absolute truth be approximated. For no matter how wide the

experience of any one man, he is still only one; and no human being can possibly contain within the scope of his own brain the



OUR 'SURPRISE PARTY'. NOV. 9th, 1905

knowledge which could be found by gathering together that of many thousands of other men, as good or better.

In this way we have held close to the body of the profession, and if at times our own views have differed from those usually esteemed "authority" in the profession, this has been through no conceit of ours but because the weight of the testimony presented to us from these numberless sources overwhelmingly justified us in the position we had taken. We look upon ourselves as the mouth-pieces of the profession as a mass, not of any class. While we have taught our friends we have learned from them at the same time, and in many instances the views we enunciate are simply giving back to the profession proven, what they have first given us. Our enormous piles of correspondence with physicians would, if we could lay them before our readers, fully justify us in every view which we uphold in this journal, and show why we hold to certain things more tenaciously and advocate certain remedial meas-

ures more energetically, than we do others. This is simply a reflex from the mass—mind of the profession, added to our own clinical tests, which have convinced us of the correctness of the conclusions reached.

The one thing which more than anything else has excited opposition to us, has been the connection of the leaders of this alkaloidal movement with The Abbott Alkaloidal Company, with which I am also connected. This has given some faint color to our opponents for the allegation that this advocacy of ours is a money-making scheme.

Dosimetry began with Burggraeve, a retired surgeon of the University of Ghent, in Belgium. For years Prof. Burggraeve advocated this reform among his own friends and throughout his own sphere of influence.

The results were scarcely a ripple on the surface of the medical body, until he transferred himself to Paris and formed an association with a manufacturing house there. This put the matter out of the realm of academic disquisition and into that of the actual world of practice. Burggraeve



THE DAY AFTER THE FIRE



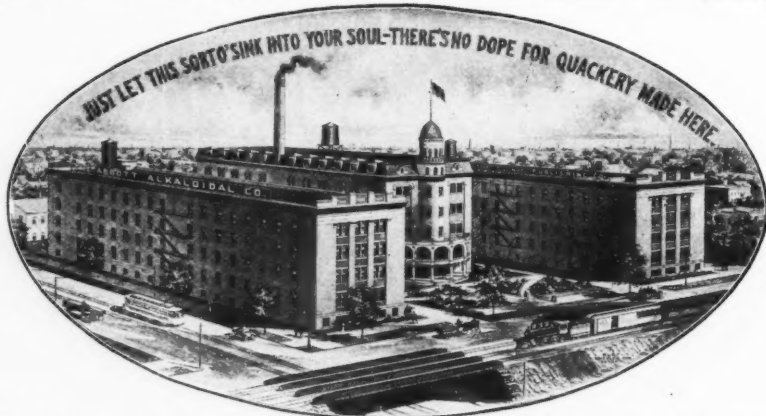
STARTING IMMEDIATELY TO REBUILD

could then recommend the very alkaloids he employed, and the physician who was inter-

ested could obtain these same alkaloids in exactly the shape and of exactly the standard strength that Burggraeve himself used them. This and this alone gave real definite shape to the enterprise, and it was not long thereafter before dosimetry flourished throughout France, Belgium, Italy and Spain, penetrating to a lesser extent to every other country of Europe, and crossing the ocean to our own.

The same necessity existed here, that of a supply house where these potent medicaments can be obtained of absolutely uniform standard quality, the doses never varying from year to year in their strength.

that a single dose of one may be one-thousandth of a grain, a single dose of another fifteen grains; a number of others occupying intermediate positions between these extremes. This is not a solitary instance—there are plenty of others. Strophanthin as found in the market a few years ago varied in strength over a scale reaching from one to ninety. A resort to the open market for these articles, therefore, threw the physician directly back into the slough of uncertainty from which we were seeking to rescue him, that of being compelled to test anew every remedy he used whenever he obtained a new prescription.



Through various ups and downs, but always climbing, and in less than four months following our fire, THE CLINIC was (and still is) "at home" in the beautiful building at your right which, with all its "busy-ness," houses one of the most perfect publishing plants in the west. The building at your left, the to-be-home of The Abbott Alkaloidal Co. is near completion, after which, the old wood structure shown in the center of the picture on page 34, will give way to the fine central administration building here shown. Remember that our latch-string is always out.

This we have endeavored to supply. Without this, if the physician to whom alkaloids are recommended undertakes to go out into the market and take his chance of securing them, in whatever condition and whatever strength the average pharmacist chooses to or can give them, the result would be the absolute impossibility of at all times obtaining exact results; and the consequence would be the death of the physician's interest, and likely his return to the old, worn-out, useless, obsolete medicaments of our grandparents.

Take, for instance, aconitine. Under this name there are found in the market preparations varying in strength so much

Be this as it may, the movement in the minds of all fair-minded physicians has been absolutely relieved of the suspicion of commercialism by the simple fact that not one of the remedies employed by the alkaloidists is patented or secret, and that the physician is perfectly free if he chooses to go to any source of supply whatsoever to obtain them. This cannot be truthfully said of the remedies so strongly urged upon the profession by those who most venomously attack the alkaloids. There's a reason.

As to what we have accomplished, our readers scarcely need to be told. We have studied the vegetable materia medica, which had fallen into absolute disuse; we have

rescued it from its obscurity; have thrown overboard the ancient, uncertain preparations which had been the occasion of the distrust of therapeutics on the part of physician and patient alike; we have presented these valuable weapons in new, modern style; we have founded a new, drug therapeutics on an absolutely scientific basis; we have placed in the hands of the physician perfect tools for his use, of the finest temper, so differentiated as to allow him to make with absolute precision the applications which he may need. We have rearoused faith in therapeutics by giving the profession a therapeutics which deserves faith. We have encouraged the profession to resume its old commanding position in the sick-room; we have urged them to intervene promptly, powerfully and effectively, for the patients' benefit, and have placed in their hands the means of doing it with safety and decision. By thus giving the physician means to combat disease of every description more effectively than ever before, by furnishing him with weapons that none but he can wield, we have brought back the conflict into the sick-room, in which he reigns supreme. We have rescued the derided doctrine of intestinal antiseptics from neglect; and by steadily adhering to what we knew to be true, by the study of our own clinical observations on this point, we have lived to see the profession come to our standpoint, in this particular at least.

The profession has come to our standpoint in many other particulars; and they are coming more and more every day. It would be edifying to any curious reader who has the time, to take the earlier issues of *THE ALKALOIDAL CLINIC* and compare the doctrines taught therein with those presented by other medical journals of that day, and by the text-books of the day, and then with the journals and the books of the present time.

We strongly urged attention to the vasomotors, and the vasomotor disequilibrium manifested in disease of many varieties. Take the current medical literature of the day and note how much attention is given to this topic, and how universally the foremost writers of the day agree with us as to the importance we place upon this clinical feature.

Do not imagine that a revolution like this can be made without somebody being hurt. Somebody is being hurt, and probably the loudness of the howling going on in some quarters may, if traced to its source, reveal who this somebody is. There is a good deal of money invested in plants for the production of this old, worthless trash, formerly denominated medicine (fit dope for quackery), and this costly apparatus, except it be kept for the quackish purposes for which it is so largely used, is going to the scrap-heap as surely as the alkaloidal idea will prevail. There are many vested business interests that are going to be hurt, and are hurt, by the success of alkaloidal therapy; and naturally the people whose interests are thus vested, likewise their aiders and abettors who are also being hurt, don't like it, not a bit. But it cannot be helped.

The medical profession has one test to apply to all such controversies—it stands ready to take the side of the one who furnishes it the better means of practising medicine. All other considerations fail, when presented to the bulk of the profession, however potent they may be with any one man or even with a set of men. We have strictly followed the line we have felt and now known to be right; we have gone ahead and we expect to go ahead till the end of our days. For a time we were lonesome, but faith and purpose were good company; now merging paths of thought and action are rapidly leading the multitude into this, the better way.

#### THE MAN WHO WINS

The man who wins is the man who wears  
A smile to cover his burden of cares;  
Who buckles down to a pile of work  
And never gives up and never will shirk.  
The man who wins is the man who does,  
The man who makes things hum and buzz,

The man who works and the man who acts,  
Who builds on a basis of solid facts;  
Who doesn't sit down to mope and dream,  
Who humps ahead with the force of steam.  
Who hasn't the time to fuss and fret,  
But gets there every time—you bet!

## PRESENT-DAY THERAPEUTIC ANARCHY

The criticism that is helpful and the criticism that does harm: let us have more of the former and less of the latter. The future of therapeutics rests with those who build up, not with those who tear down

By REYNOLD WEBB WILCOX, M. D., LL. D., New York

Professor of Medicine at the Post-Graduate Medical School and Hospital; Physician to St. Mark's Hospital; Author of "Pharmacology and Therapeutics," "Treatment of Disease," etc.

IT was said by an eminent French writer that America was the country in which all social, political and economic experiments were to be tried. We have had many years of therapeutic nihilism and we are now emerging from the despair of the dead-house. This problem has solved itself with the aid of the common-sense of the American people. He who proclaimed that nothing could be done for the cure of disease or alleviation of symptoms simply published the fact that he did not know anything of the productive part of his art—science, and the synonym for therapeutic nihilist became therapeutic ignoramus. While the sick man might have a languid, academic interest in pathology he was imbued with a keen interest in whatever was likely to tend to improvement, so that nihilism died a natural and unlamented death.

### *The Sins of the Few Visited upon the Many*

Now we are confronted with another experiment, to determine how much the healing art can advance when groups of workers are set against each other and mutual distrust is created. It is acknowledged that we have, owing to the unselfish devotion of workers in various allied fields, the best Pharmacopeia in the world, and that we have efficient laws to oblige compliance with the rubrics of the law-book of pharmacy and medicine, and yet doubt is cast upon the honesty and sincerity of drug manufacture. Doubtless all manufacturers do not come up to the high standard set for medicinal products, but the sins of the small minority are insufficient to cover the splendid work of the great majority; and, likewise, delinquency in a compara-

tively insignificant product of a given manufacturer should not discredit his entire output.

It is difficult to imagine why drugs are singled out and held up to reproach when it is considered of no importance that over-exploited health resorts and mineral springs, private hospitals for questionable practices and fraudulent medical schools are freely advertised. Physical therapy has made enormous strides and has been of marked benefit in the treatment of disease, yet the few extravagant claims have been unnoticed. If the sins of the few are so visited upon the many in one department allied to medicine the question naturally arises why all are not treated alike.

We are now suffering widespread financial discomfort owing to the unwisdom in certain quarters. We are bearing those ills with fortitude because the honesty of the cause is unquestioned. When the conditions became acute those whose financial methods have been most fiercely assailed, disregarding their own interests or feelings, came to the rescue and saved the credit of the financial world. This was done because the evils resulted from unwisdom, but honest unwisdom. It so happened recently, that on the same evening there was a meeting of the most powerful financiers and another of the most aristocratic of the hereditary societies, and in both the name of one to whom, rightfully or wrongfully, is ascribed the cause of prevailing discomfort, was received in silence.

### *Unworthy, and Unscientific Criticism*

When, however, the criticism is anonymous, bears the earmarks of previous bias, or transcends the bounds of dignified



scientific communications, other reception of the authors of distrust must be expected. Communications from discharged employees or from servants who employ their master's money to defame him, or from investigators who decline to avail themselves of proffered corrections, create only distrust and do not add to the advance which is expected to go on in science. If a young laboratory worker starts with the proposition that a drug is inert because some one else has stated as a fact that it is, he may be pardoned, because he may not know the conditions which made the conclusion seem a just one. But when, as a second proposition, he declares that the drug did not receive official recognition because it was inert, he also states a fact, but the reason was not as stated, as he might easily have learned from any one of those who took part in deciding the question. Then laboratory experiments were undertaken and the preconceived conclusion reached.

A negative result proves nothing beyond the fact that a particular observer working on particular material obtained no results. When an experienced worker taking the first preparation at hand proves by demonstration, with an instrument of precision, that this preparation is active and gives definite pharmacological results the value of the negative conclusion becomes *nil*. The failure to obtain results might be assumed to be due to the inexperience of the observer. If, however, an offer to show that his two original propositions are incorrect and to furnish him with material which is active is ignored, the presumption may be that his negative conclusions are not so entirely trustworthy as would be expected from an investigation ostensibly carried on to ascertain the truth and nothing else. And it is exceedingly dangerous to reputation to publish a negative conclusion

when a positive one can be mathematically demonstrated. A careful study of other alleged scientific investigations might yield similar results.

American medicine rests upon the self-sacrificing work of all who contribute directly or indirectly to its advance and those who create distrust, either through ignorance or worse, must not expect the objects of



DR. REYNOLD WEBB WILCOX

anonymous misrepresentation to build up the structure which they have done their best to tear down. The future of therapeutics rests with men who try to find out the truth and are ready to place their names upon their work. Errors there will be, for no one is infallible, but malice has no place in any honest endeavor. That commercial interests are best served by a rigid adherence to scientific accuracy is proved

by the vast amount of work which is being done in commercial laboratories. No one who has ever served on the revision committee of the United States Pharmacopeia, and thus acquired a practical knowledge of what is being accomplished by the many workers in various fields and an apprecia-

tion of how thoroughly all endeavor is subordinated to scientific ends, would ever aid the destructive agencies which are temporarily prevalent. Those who are conducting iconoclastic campaigns should remember that the Ten Commandments have not as yet been superseded by any human code.

## WHY ALKALOIDAL THERAPY APPEALS TO ME

What this method of medication has done for me,  
and what, through me, it has done for others.  
Why every physician should be interested in it

By JOHN M. SHALLER, M. D., Denver, Colorado

Author of "A Therapeutic Guide to Alkaloidal Medication"

**A**CTIVE-PRINCIPLE therapeutics appeals to me, first, because it is *advanced* therapeutics. It appeals most strongly to me, because I have learned that physiological effects are produced more quickly by the use of dependable drugs in minimal, accurate doses, frequently repeated, than can be obtained through the administration of the drugstore remedies, as dispensed on prescription. The more rapidly physiological effects are produced, the more quickly are fever, pain, congestion and inflammation reduced, and the rhythm of pulse and respiration restored to normal—and this means rapid cure. In other words, you get "returns" more quickly and more pleasantly when the active-principle granules are employed. The method is absolutely a "short cut" to relief and cure.

Quick relief and rapid cures always inspire in the patient confidence in the physician, and through them there is established in the physician himself a firm belief in the remedial power of medicine. How often have we heard prescription-writing doctors declare that "medicines have no curative qualities." Is it not strange that these same physicians *keep on* giving their patients medicines which they believe without curative value, when they can easily at least try those that others find effective?

Active-principle therapeutics also appeals to me because of the form in which the

medicines are prepared. A large number of granules, of great variety, can be carried conveniently in a small pocket-case. Furthermore, patients, particularly children, are easily induced to take the granules or solutions of granules, because medicine given in this form is very palatable as compared with the nauseous doses of former years.

### *The Physician should Work for the Patient's Financial Interest*

It appeals to me in another way: Having been in the retail drug business before entering the practice of medicine, I obtained a thorough knowledge of the ways of that business. From the first I was amazed at the retail prices charged for medicines. I could not see the justice of charging fifty cents for what actually cost less than five. Later, in writing prescriptions, this fact appealed to me still more strongly. In many cases not more than one or two doses of a prescription were taken, the actual cost of the medicine being, possibly, one cent. The cost to the patient was from thirty to fifty cents. This seemed to me an unjust extravagance, forced on the patient by the physician, who should work in the interest of his patient in all things, not only in regard to his health but also in regard to his expenditures. This is not above the dignity of any true-hearted man. When a physi-

cian carries alkaloidal medicines, a few granules of such remedies as codeine, aconitine, calx iodata and emetine, costing a few cents only, are usually sufficient for a day's supply for one patient.

Of greater importance, however, is the fact that the patient receives the medicine at once and *gets just what is ordered*. A better impression is made upon the patient and his friends if the physician, himself, can give the first dose. If the symptoms are urgent or dangerous, the physician should remain until there is improvement. That doctor is most successful who gives personal attention to his patients.

Success is the art of pleasing. This is more quickly and more easily accomplished when the physician has at hand the most rapidly acting, the purest, the safest, the most palatable and the most effective kinds of medicines. This is not only good business (because it inspires confidence), but it is also the highest kind of medical art, for the patient is receiving the best possible treatment,—the most scientific, because the medicines are simple and pure, uniform in action, and the results are the best.

It has enabled me to cure my patients quickly and to abort many acute inflammatory diseases, particularly pneumonia.

It has greatly increased my reputation as a successful practitioner and thereby has increased my practice.

In out-of-the-way places in the Rockies I have saved several lives and relieved much suffering because of the twelve-vial case of alkaloidal granules which is my inseparable companion. A case of this kind contains a variety of granules sufficient to treat any emergency.

As an extensive writer for medical journals, as the author of the "Guide to Alkaloidal Medication," as a teacher of physiology and clinical medicine for many years,

there are many hundred practitioners who have been led through my efforts to adopt alkaloidal medication.

In teaching physiology, especially when considering the important part played by the vasomotor nerves in congestion, inflammation and pain, I have never lost an opportunity to show how aconitine, atropine and glonoïn relieve these conditions by



DR. J. M. SHALLER

The Doctor contributed to the first number of *THE CLINIC* and has been writing for it and working with us ever since.

diverting the blood-supply from the affected areas into almost bloodless ones, by dilating contracted arteries and flushing the capillaries in parts remote from the congested center.

Every teacher is gratified to learn that some good has come from his efforts. In remote mining camps and towns I meet our students of former years, now sturdy, hard-worked physicians who use alkaloidal medication. At other times I have been

pleased to see in miners' cabins, far from civilization, a familiar sight—a can of saline laxative.

What does all this mean? That this effective form of medicine is valuable and productive of good; that its use is spreading because it gives satisfactory returns.

Then in large cities, even among medical teachers, I have been astonished to hear them say that "aconitine is a rank poison and under no conditions would they use internally so dangerous a medicine." This assertion simply shows that these men have had no personal experience with aconitine, and that they are quoting some one else who has never used this alkaloid. There is no medicine safer or more productive of good or more useful in the treatment of all acute inflammatory diseases, particularly those of childhood. Nothing is poisonous to human life unless used in poisonous doses. It is a physician's business to know when any medicine can kill.

There are fully 25,000 of the physicians of this country, or one-fourth of the entire number, who are using aconitine as a febrifuge, and cases of fatal poisoning are almost unknown. Compare this with the large number of cases of poisoning ascribed to the coal-tar derivatives, and the conclusion must be forcibly drawn that the latter product is more dangerous than aconitine and that it requires more care in its administration.

After many years of experience in alkaloidal medication, my parting advice is, study the action and results produced by amorphous aconitine. In general practice you will have better results, abort more diseases and obtain greater satisfaction from its use than from any other remedy. Use it in all acute, inflammatory diseases, particularly in the beginning of acute pneumonia. There is no medicine that can so effectually lower the death-rate of this very prevalent and dangerous disease.

## ANTISEPTICS AND ANTIPYRETICS

The relation of the molecular weight and the boiling point to the activity of the antiseptics and antipyretics. The remedial powers of our materia medica should be studied, not belittled

By THOMAS J. MAYS, M. D., Philadelphia, Pa.

**A**NTISEPTICS are substances which prevent or retard putrefaction or decomposition of animal and vegetable matter, and are also known as disinfectants, antiferments, antiputrescents, deodorizers, etc. This will serve as a definition, which is at least sufficiently accurate for our purposes.

All nongaseous antiseptics, which only are included in this discussion, have a high molecular weight and a high boiling point, so far as the latter can be ascertained. This is shown by the following groupings, in which are given: first, inorganic antiseptics; second, organic antiseptics; and third, organic nonantiseptics, with their chemical formulas, molecular weight and boiling points, respectively:

NAME	I. FORMULA	MOLECULAR WEIGHT
Bismuth benzoate	Bi (C <sub>7</sub> H <sub>5</sub> O <sub>2</sub> ) <sub>3</sub>	573.00
Iodoform	CHI <sub>3</sub>	392.56
Zinc sulphocarbolate	Zn (SO <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> 8H <sub>2</sub> O	346.00
Mercury salicylate	Hg (C <sub>7</sub> H <sub>4</sub> O <sub>3</sub> )	335.80
Zinc iodide	Zn I <sub>2</sub>	318.16
Mercury chlor., corros.	Hg Cl <sub>2</sub>	270.50
Mercury chlor., mild	Hg <sub>2</sub> Cl <sub>2</sub>	235.00

None of the above have a boiling point except mercury, which is 357.

NAME	II. FORMULA	MOLEC. WT.	BOILING PT. C.
Acid, benzoic anhyd.	C <sub>14</sub> H <sub>10</sub> O <sub>3</sub>	226	360°
Acetyl-thymol	C <sub>12</sub> H <sub>10</sub> O <sub>2</sub>	202	244°
Menthol	C <sub>10</sub> H <sub>20</sub> O	156	212°
Eucalyptol	C <sub>10</sub> H <sub>18</sub> O	154	177°
Thymol	C <sub>10</sub> H <sub>14</sub> O	150	165°
Guaiacol	C <sub>7</sub> H <sub>8</sub> O <sub>3</sub>	140	201°
Formaldehyde: acetate	C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	132	170°
Xylene	C <sub>8</sub> H <sub>10</sub>	106	140°
Acid, carbolic	C <sub>6</sub> H <sub>4</sub> O	94	170°

III.  
 (NON-ANTISEPTICS)

NAME	FORMULA	MOLEC. WT.	BOILING PT. C.
Amyl nitrite .....	$C_5H_{11}NO_2$	117	98°
Ethyl acetate .....	$C_4H_8O_2$	96	72°
Ethyl formate .....	$C_3H_6O_2$	80	55°
Ether .....	$C_4H_{10}O$	74	37°
Propyl aldehyde .....	$C_3H_6O$	64	48°
Ethyl aldehyde .....	$C_2H_4O$	49	22°
Acid hydrocyanic .....	$HCN$	27	26°

*Substances Having Highest Molecular Weight Most Antiseptic*

From the above grouping it appears that antiseptics of the highest molecular weight, as mercury and iodoform for example, are known to have the highest antiseptic power; that antiseptics of the highest antiseptic power probably also have the highest boiling point; and that on the whole, the boiling point rises and falls with the increase and diminution of the molecular weight. This means that the greater the molecular weight and the higher the boiling point of a therapeutic substance, the more physical inertness it possesses and the more pronounced is its antiseptic property. This certainly seems true from a physical standpoint and gives us good reason for believing that antiseptics act principally by virtue of their weight and physical inertia, and by the power with which they depress molecular, organic activity.

Such a mechanism of therapeutic action becomes clearer when we remind ourselves of the fact that cold is a most effective antiseptic and that no active sepsis or decomposition occurs in the presence of a freezing temperature. Now, it is well established that cold acts on or influences living matter physically by depressing or inhibiting its function, and from what has been stated it is obvious that antiseptics, in addition to the chemical affinity for albumin, which some possess, interfere with and depress physiologic activity in the same manner.

*What is Antipyresis?*

Whether or not the essential action of antiseptics is that of germicides, as is currently believed, will become more obvious after a consideration of antipyretic action.

What is antipyresis? This must be anticipated by the question, What is fever? Physiology teaches that the normal heat of the body is produced almost exclusively through oxidation, and that 80 percent of this quantity comes from oxidation which takes place in the muscular system. In fever this proportion of heat-production is increased. Fever is an excessive accumulation of heat in the body, either as a result of over-production of heat, or of diminished loss, or of both. In health a balance is maintained between heat-production and heat-loss by the thermotaxic mechanism, which is controlled by heat-centers residing in the cord and base of the brain. In fever this apparatus is disturbed. When the heat-centers are irritated fever follows.

Now, both muscular contraction and fever are the resultants of suddenly increased physical and chemical activity in muscular tissue. A muscle may be made to contract either by stimulating or irritating its fibers directly. Fever, as has been seen, may likewise be caused by irritation of the thermogenic nerve centers, and there is good reason for believing that the same phenomenon is provoked by poisonous irritants acting directly on the muscular fibers. So far as the mechanism of fever is concerned, then, it may be divided into two varieties; one which operates on the central nervous system, like the germ or toxin of some central fevers; and the other by irritating the muscular system direct, more or less independently of the nervous system, so far as this is possible, as in the case of rheumatism and allied affections.

*Analogy Between Muscular Contraction and Fever*

This close connection between muscular contraction and fever appears very striking when the elementary phenomena, which underlie and accompany the former, are compared with those which manifest themselves during the fever process, as is seen from the following:

1. Muscular contraction is accompanied by elevation of temperature, which, as a rule, is true of fever.



2. Muscular contraction and fever are accompanied by oxidation and by the production of carbon dioxide and lactic acid in excess.

3. Muscular contraction is the product of an explosive decomposition of nitrogenous tissue, and fever is chiefly the result of active decomposition of the same substance.

4. Muscular contraction, fever and decomposition of nitrogenous tissue take place at a comparatively low temperature.

5. Muscular contraction, fever, organic oxidation, decomposition of nitrogenous tissue and an excessive discharge of carbon dioxide and lactic acid are incited by nervous impulses.

It may be said, then, that a morbid irritant of the brain and nervous system, like that of typhoid fever, quickly deflects its impulses to the unstable nitrogenous elements of the muscular system, and there, instead of producing muscular contraction, incites decomposition or fermentation, which gives rise to high heat and excessive discharge of carbon dioxide and lactic acid. On the other hand, the poison of rheumatic fever is a special irritant of the fibrous or serous tissues, like the joint-capsules, ligaments, tendons, tendinous sheaths, synovial membranes, sheaths of muscular fibers, etc., and, therefore, instead of being a central irritation that produces fever, like that of typhoid-fever poison, it is a peripheral incitor of fever.

In searching for the fundamental element in antipyretic action, this, as in the case of antiseptics, will be found in that property which depresses organic action, and of which the therapeutic behavior of cold is a notable representative. There is no question that so far as its physical influence is concerned, cold is as much the ideal antipyretic as it is the ideal antiseptic, but its practical application in many cases where antipyresis and antiseptics are indicated, is limited, and other agents which yield a similar therapeutic property take its place.

#### *Antipyretics Useful in Rheumatism*

Viewing antipyretics from a broad standpoint, it is evident that the tests of practical

experience have found certain febrifuges more useful in some than in other forms of fever, which has led to the segregation of this class of agents in fairly well defined groups. Thus, in the treatment of acute rheumatism, the following substances have been preferred:

#### IV.

NAME	FORMULA	MOLEC. WT.	BOILING PT. C.
Sodium salicylate	$\text{Na C}_7\text{H}_5\text{O}_3$	160.00	
Salicin	$\text{C}_{13}\text{H}_{18}\text{O}_7$	285.33	260°
Salol	$\text{C}_{13}\text{H}_{10}\text{O}_3$	213.49	420° Melts
Methyl salicylate	$\text{C}_8\text{H}_8\text{O}_3$	151.64	220°
Salicylic acid	$\text{C}_7\text{H}_6\text{O}_3$	138.00	200°

All the agents in this list, except cold, are ternary, nonnitrogenous organic compounds, without a special affinity for the nervous system; have heavy molecular weights, high boiling points, so far as the latter can be ascertained; and all are administered in large doses, in order to obtain their antipyretic effect. Judging from the analogous action of antiseptics, there is no doubt that this group of antipyretics reduces the fever temperature of rheumatism chiefly by overwhelming the increased or exaggerated, molecular or cell activity in the fibromuscular tissues of the body, which is engendered by the rheumatic poison, whether this is a microorganism, uric acid or something else. Surely no one would contend that the cold bath or the application of ice, which are approved methods of treatment in this disease, have any other effect!

#### V.

NAME	FORMULA	MOLEC. WT.	BOILING PT. C.
Acetanilid	$\text{C}_8\text{H}_9\text{NO}$	134.73	295°
Antipyrin	$\text{C}_{11}\text{H}_{12}\text{N}_2\text{O}$	187.65	113° Melts
Phenacetin	$\text{C}_{10}\text{H}_{13}\text{NO}_2$	178.63	135° Melts

The members of group V, which represent quite a large number of antipyretics, consist of quarternary, nitrogenous organic compounds, possess heavy molecular weights and high boiling points, and produce their effects in medium large doses. Experiments prove that they reduce fever, not by allaying peripheral irritation, as is done by salicin, salicylic acid and other agents of the same class in rheumatic pyrexia, but by virtue of their depressing and paralyzing influences on the spinal nervous

system and on the thermogenic nerves, thus blocking the path by which disturbing impulses are transmitted from the central nervous system to the seat of heat-production in the muscular system, in the same manner as morphine prevents the conduction of impulses which would give rise to pain or abnormal muscular movements.

### Relative Efficiency of the Quinine Salts

VI.		MOLECULAR WEIGHT
NAME	FORMULA	
Quinine sulphate:		
	$(C_{20}H_{24}N_2O_2 \cdot 3H_2O)_2 \cdot H_2SO_4 \cdot 7H_2O$	870.22
Cinchonidine sulphate:		
	$(C_{19}H_{22}N_2O)_2 \cdot H_2SO_4 \cdot 3H_2O$	738.52
Cinchonine sulphate:		
	$C_{19}H_{22}N_2O \cdot H_2SO_4 \cdot 3H_2O$	720.56
Quinine bisulphate:		
	$C_{20}H_{24}N_2O_2 \cdot 3H_2O \cdot HSO_4 \cdot 7H_2O$	546.88
Quinine salicylate:		
	$C_{20}H_{24}N_2O_2 \cdot 3H_2O \cdot C_7H_6O_3$	516.00
Quinine benzoate:		
	$C_{20}H_{24}N_2O_2 \cdot 3H_2O \cdot C_7H_6O_2$	500.00
Cinchonidine salicylate:		
	$C_{19}H_{22}N_2OC_7H_6O_3$	432.00
Cinchonine benzoate:		
	$C_{19}H_{22}N_2OC_7H_6O_2$	416.00
Quinine hydrochloride:		
	$C_{20}H_{24}N_2O_2 \cdot 3H_2O \cdot HCl \cdot H_2O$	395.63

In group VI the cinchona salts are arranged in accordance with their molecular weights, the sulphates heading the list, while the hydrochloride stands at the bottom. This arrangement also seems to represent the respective therapeutic strength which has been ascribed to these compounds by clinical usage, for it appears that the sulphate preparations are consumed in very much larger quantities than any of the other cinchona salts formed by inorganic acids. That the cinchona and acetanilid groups of antipyretics, in common with the organic and inorganic antiseptics already briefly discussed, act largely, if not altogether, in virtue of their heavy molecular weight, there can be little doubt. From this it must not be assumed, however, that every therapeutic agent that is possessed of a heavy molecular weight is either an antiseptic or a febrifuge; for the sulphate of strychnine and of morphine have almost as high a molecular weight as that of the cinchona sulphates, yet the action of these two classes of agents is altogether different. This is largely due to the fact that the former,

in virtue of their intense elective affinity for the nervous system, limit their depressant action in maximum doses, on that tissue, while the latter having a more diffuse trend of action, exert their influence on the neuromuscular system.

Several facts stand out very clearly in this brief review, viz: that all antiseptics are nonnitrogenous compounds, the organic group of which contains a moderate quantivalence of carbon, possesses no elective affinity for the nervous system, and has a general influence on the body; (examples—mercury chloride cor., acid benzoic, etc.); that organic antipyretics have a composition and a general action similar to those of the organic antiseptics (examples—sodium salicylate, salicin, etc.); that nitrogenous organic compounds with only a moderate quantivalence of carbon produce antipyresis in virtue of their central action on the nervous system (examples—acetanilid, antipyrin, etc.); and that nitrogenous substances with a large quantivalence of carbon exert both a central and peripheral depressant or antipyretic effect (examples—quinine, cinchonine, etc.).

The ultimate action of antiseptics and antipyretics is, therefore, reduced to a mechanical basis, but a mechanical feature is a common characteristic in the action of many, if not of all, drugs. For example, all the important cathartics wield their influence in a mechanical way, not by depressing, but by stimulating alimentary peristalsis and secretion. Sodium phosphate and sulphate, potassium tartrate, magnesium carbonate and sulphate, by reason of their slow diffusibility, difficult absorption and heavy molecular weight, possess the mechanical power of enhancing the function of the alimentary canal. Other groups of remedies have a similar action.

In conclusion, it follows that antiseptics and antipyretics have the same fundamental action, that the primary function of the former is not that of destroying microorganisms, although this may occur incidentally, nor is it the direct office of the latter to reduce fever, but that they both, like cold, temporarily depress unduly ac-

celerated molecular activity of the body, which is the common and interchangeable property of irritation, inflammation and pyresis, until nature is given time and opportunity to reassert herself and restore order and harmony in the perturbed area. The sole object is the reinforcement of

that the principles of antiseptics and antipyresis, as well as all other therapeutic principles, rest on sound physiology and pathology. It is very unfortunate for scientific medicine that at present there exists a tendency to belittle the remedial powers of our materia medica, to ignore the import-

ance of our vast store of valuable therapeutic knowledge which has been gained by clinical experience, and to lure the profession into following unsafe and whimsical idols. Let us not rashly be led into the belief that the fathers of medicine labored in vain. They had an instinctive vision that in the wonderful influence which these agents possess over vital processes, lie hidden potentialities which will appear as colossal magnitudes, when compared with what we already know of their action.

As evidence of this prevision, it may be said that modern pharmacology has opened new worlds for research, and agents which have been viewed with scorn and contempt, now loom up into resources of untold power. The recent investigation of Meltzer into the anesthetic property of common magnesium sulphate is an example of this, but Meltzer has not touched more than a fractional portion of the diversified value of this drug; and that which is true of this magnesium salt will be found true of many hundreds of additional members of our medical armamentarium, when rightly investigated.

[Upon page 15, Editorial Department of this issue, will be found a brief outline of Dr. Mays' proposed

work on Therapeutics, which promises to open up new fields for investigation and to aid in the establishment of our therapeutics on a firm scientific basis. Look up the above-mentioned editorial and read it carefully.—Ed.]



DR. THOMAS J. MAYS

A clinical therapist whose writings have rendered great practical service to Medicine. Dr. Mays is now preparing an important work on therapeutics.

natural processes, and the therapist who, with all sorts of chimerical devices and artificial contrivances, assumes to amend and rectify physiologic function, misses his vocation, and will sooner or later awake to a harvest of regrets. It must be realized



## AN "ALKALOIDIST" IN THE PHILIPPINES

How a far-off reader of *Clinical Medicine* looks forward to its coming, and helps to spread its message; with a description of that strange city of the orient—Manila

By THOMAS E. MOSS, M. D., Manila, Philippine Islands

Surgeon in the Philippine Constabulary

I ALWAYS look forward to the arrival of my number of *CLINICAL MEDICINE* with great anticipation, though it is sometimes sixty days old when I get it. I never fail to find something of helpfulness and interest in every number.

Most of the physicians over here are not in sympathy with the *CLINIC*. They look upon it as a "scheme," a source of wealth and a business proposition. I tell them that they are exactly right, only that they have not gone deeply enough into the matter—that if they would look at it with unprejudiced eyes they would find that the "scheme" is to help mankind by educating the physician; it is the "source of wealth" not to the editors of the journal alone, but for the most part to the physician who has brains and common-sense enough to follow its teachings and to use the "active principles;" while, as to the "business proposition," I do not think that the average physician has any right to talk, for I do not know of a class of men, taken as a whole, who know less about business; so if the *CLINIC* is a business affair, they should get in line and learn something about the method whereby it has made itself almost indispensable to more than thirty thousand physicians.

### *An Argument With a Doubter*

I had an argument with a very noted physician here the other day in regard to aconitine; he said that he had tried it "once" and could get no results. I asked him who made the medicine. He said that he "didn't know." I told him that we did not claim that "any old" sample of aconitine made by just "anybody" and used indiscriminately, would do anything; but that we know that certain alkaloids

made by dependable people would do certain things, and that when given right a definite amount would do a definite amount of work.

This physician also wanted to know why we claimed that calcium sulphide was indicated in certain forms of skin disease? I told him for the simple reason that sulphur in almost any form was death to most forms of parasites, and that in this form it was eliminated by the skin to a great extent.

### *The Ever-Present Skin Diseases*

I reckon that I have had more success with calcium sulphide and sulphocarbolate of zinc since I have been over here than with all the other medicines put together, for we have more skin and bowel disease than any other; in fact, we have so many skin diseases that we get tired of looking up the right name for them and class about a dozen different ones under the head of "Dhobie itch." The thing that has struck me most forcibly is the fact that since I have been over here and studied the tropical diseases I have seen some cases that resemble so closely those that I have had in "the States" that I believe that they are identically the same, only that they are not recognized. A case that I have in mind just at present is one of mycetoma; this was seen by me in a negro back in Kentucky where I used to live. I amputated the foot and diagnosed the case as a tubercular lesion, but since coming over here and seeing the disease known as mycetoma, I am satisfied that my case and these are the same.

I am sending you a picture of my parlor as it looked when I was in the Cagayan Valley. The people portrayed in the scene

are my wife, her sister and my little daughter; also, one of my servants is seen holding up my collection of wild-boar tusks. Upon the walls of the room can be seen a few weapons. They are a part of my collection that I hope some day to bring back to the States. I am also sending you a picture of myself.

I am no longer in the Cagayan Valley. I was ordered down here two months ago

some not more than ten or fifteen feet across, with the second story of the old-fashioned Spanish houses projecting out over them.,

On the ground floor of these houses, looking out upon the street, are large windows barred with steel and iron. In these windows can be seen, seated, the Spanish *senorita* (Spanish girl) talking to people on the outside. No Spanish or high-class Filipino girl is allowed to go anywhere

by herself. The mother or father always accompanies her, but she may sit in these windows and talk to anyone she pleases. I have noticed the rare beauty of some of them; they are of a type of beauty peculiar to the Spanish race. They have fine features and, with their dark eyes, long lashes and jet black hair, certainly look lovely. Some of them have an



DR. MOSS'S COLLECTION

The most important part being the wife, the sister and the little one—but all good to have!

to Manila to take a station. I am in charge of the hospital over at the Constabulary School, and am at present assisting the chief of the medical division.

#### *Manila and its Walled City*

I do not think that I shall stay here in Manila very long for I like the provinces better, as I like an open-air life and can not stand confinement. This city of Manila, though, is certainly one of the most picturesque places on earth. One part of it is what is known as the "Walled City." The Walled City is that part of Manila which the Spaniards fortified years ago. The ground covered by this Walled City is about a mile in extent, I should say about a mile in area. This is a typical Spanish city; here can be seen the small, narrow streets,

olive tint to their complexions, and some have very fair skins, but to all is given that shade of swarthinness that seems to be indelibly stamped in their features, no matter how fair they may appear.

#### *A Description of the Wall*

All around the Walled City runs a high wall protected by a moat, fifty or sixty feet wide; this wall was built for protection against the people of the surrounding country, who were in the old days eternally rising up in revolt. This wall is about thirty feet wide at the top and about forty feet high; it is built of stone, and upon the top one can see, to this day, cannon that were used for defense. Running all through this wall are passage-ways and rooms; some were used for storing ammunition,



some for the soldiers to sleep in, some for the guards while off duty, and yet others were used as dungeons where prisoners were put to wear their lives away, never seeing the light of day and with scarcely enough food thrown to them to keep alive the feeble spark of life—sometimes with the roar of battle going on above them.

Some of the cannon have been taken off this wall and placed in other parts of the city and in the parks for ornaments, but the majority are still on the wall where sightseers go to look at them; they are for that, nothing more, for while the Spaniards did not want the insurgents to get close to them, the Americans found their greatest difficulty was to get them to come close enough.

The largest part of Manila is that which is outside of the Walled City; naturally so, for only a limited number of houses could be put inside of the enclosure, and as they were built some of them, hundreds of years ago, they are not of modern architecture, though in the other part of Manila one may see palaces. There are some of the most beautiful houses and grounds in Manila that can be imagined. Of course they are beautiful. Wouldn't you think that a house would look beautiful, when set right in the middle of a nursery of flowering shrubs and flowers of every description? I wish that "you-all" were over here to enjoy it. The flowers over here bloom all the year round. They only drop their blooms in order that other flowers of more surpassing beauty may take their place.

#### *The Luneta a Beautiful Place*

The finest thing over here in this city, to my mind, is the Luneta, which is a large lawn covering about fifteen acres of ground

and situated right on the shore of the bay. The largest boulevard in the city runs right by it and constitutes one of the drives that traverse it. There are walks and drives all through it, with grassy swards between. A large bandstand is situated in the center of the Luneta where the Constabulary band plays every other evening



DR. THOMAS E. MOSS

An American surgeon, who has been rapidly promoted in the Philippine Constabulary service. Many of his experiences, all interesting and some exciting, have been recorded in *CLINICAL MEDICINE*.

when the weather permits. This is one of the finest bands in the world. It contains eighty pieces, all of silver, and it certainly makes sweet music. The whole of the grounds is covered with grass that grows the whole year round. It is kept trimmed and always looks green and cool.

The Luneta is where the aristocracy of Manila go in the cool of the evening to

walk and drive; you see it is too hot to go anywhere during the day, but when evening comes, with the cool breeze blowing in from the ocean, it is very pleasant.

It is a wonderful sight to see the beautiful women of all nationalities, dressed in splendid costumes, driving by in sparkling equipages drawn by the high-spirited little ponies. These ponies in themselves are something to look at, for they are the gamest little horses in the world and seem just as proud as the people. Sitting here

in this place, with the atmosphere heavily laden with the perfume of millions of flowers, watching this changing scene, there seems to steal over one that indescribable something which at dusk, in the Orient, seems to fill the land with a sweetness that lulls the brain and instills into the soul a sense of peace and rest. I have often sat here thus, looking out at the great ships in the bay, and always my thoughts turn to the dear land across the sea, the finest, after all, on earth.

## THE AMERICAN SCHOOL OF MEDICINE AT BEIRUT

An American medical college in Syria which is doing splendid educational work, while maintaining the ideals of the noblest manhood. No therapeutic nihilism here!

By Walter B. Adams, M. D., Beirut, Syria

*Professor of Materia Medica and Therapeutics*

IN 1867 was there a school of [medicine in America with a four-years' graded course of study of nine months each year? Is there one today? Scant eight months is the year of most of the best schools. Yet forty years ago, when the medical department of the Syrian Protestant College was opened, it began with a course of thirty-six months of teaching graded from year to year. Such were the high ideals at the start, and since that time there has been a constant endeavor to keep in the front rank of medical education. So far as paper and ink will show this I wish to demonstrate it; but one should come out here—as have Senn and Weir Mitchell and Keen and Bland-Sutton and others eminent in our profession—and see for one's self and bear witness.

Incorporated by the laws of New York, a department of the University of the State of New York, this medical school is also recognized by the Turkish government as a department of the Imperial University at Constantinople. It is the medical department of the Syrian Protestant College, which, in the Levant, is nearly always

spoken of as "the American University." Last year the enrollment of the college in all of its seven departments was 878; of these 102 were in the school of medicine. The board of trustees in New York consists of Morris K. Jesup, president; D. Stuart Dodge, secretary and treasurer; Samuel Dennis, Alexander Maitland, V. Everit Macy, C. C. Cuyler, Arthur C. James, M. Hartley Dodge, and Wm. M. Kingsley. The university staff consists of the president, fifteen professors, eight adjunct-professors, nine administrative officers, and forty instructors.

### *The Medical Faculty*

The faculty of medicine comprises the president, Rev. H. S. Bliss, D. D.; Rev. George E. Post, M. D., D. D. S., LL. D., surgery; Harris Graham, B. A., M. D., practice of medicine, pathology, bacteriology; Walter Booth Adams, M. A., M. D., materia medica, therapeutics, dermatology; Rev. Charles A. Webster, B. A., M. D., anatomy, diseases of the eye and ear; Franklin T. Moore, M. A., M. D., hygiene, obstetrics, gynecology; James A. Patch,

S. B., chemistry; Harry G. Dorman, B. A., M. D., physiology, general pathology, pediatrics; T. C. Ladakis, Phar. M., analytical chemistry; Nimeh K. Nucho, M. D., normal and morbid histology; Ancel St. John, Ph. B., demonstrator of the x-ray; Nikola K. Maluf, M. D., demonstrator of anatomy and prosector of surgery; Nejib Y. Yunis, M. D., clinical assistant in surgery; Nikola C. Rubeiz, M. D., clinical assistant in internal medicine.

During the first twenty-five years of the history of the college the instruction was given in the Arabic language, and it is impossible to realize the immense labor thrown on the faculty to prepare the necessary textbooks, both academic and medical, in that language, and meet all the other demands of their chairs, or "settees," as Dr. O. W. Holmes once spoke of his compound chair. In 1882, however, the language of instruction was changed to English in the whole institution, and a new era began.

The curriculum has been steadily enlarged and enriched. Studies formerly in the course, such as botany, zoology and inorganic chemistry have been taken out and placed in the list of requirements for entrance. In addition, candidates must be able to read, write and speak English, and either French or Turkish, as the student may elect, with sufficient readiness and correctness to enable them to pursue the course of study. Political and physical geography, Walker's "Physiology and Hygiene" or equivalent, arithmetic, algebra through quadratics, plane geometry and physics are the other requirements. The B. A. degree admits without examination. The examinations are written—and rigid. No conditions are allowed except in French.

Our method of instruction is based largely upon recitations from the best and latest

editions of textbooks, thus requiring constant application and study. A student coming to us from another school once said, "At my former school one might learn if he chose, but here he must learn or get out." These recitations, however, are supplemented by lectures, demonstrations, clinical lectures, and oral and written quizzes.



The Medical Building of the Medical Department of the Syrian Protestant College at Beirut, Syria.

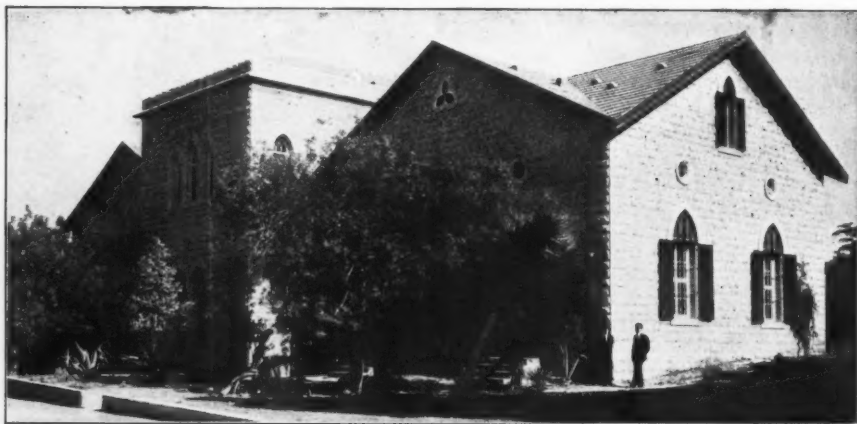
Practical demonstration and close contact with the subject under consideration is always to the front, and our men are required to touch and taste, look and listen, smell and feel wherever opportunity offers. Great prominence is given to laboratory work in the first two years, and to clinical work and assistance in the later years of the course.

A clearer idea may be given if an outline of the work is presented. The freshmen have organic chemistry five hours a week for a semester, and spend four hours each week for the nine months in the analytical laboratory, analysing metals, acids, alkaloids, urine and calculi. Five recitations in anatomy, studying bones, joints, ligaments and muscles from Gray, and a full course of work in the "anthropotomic laboratory," as Dr. Holmes euphemized his workshop, are required. Five hours a week of histology—four at the microscope

and one of recitations—all the year give a good basis for understanding physiology, which is taken up in the second semester, five hours a week, and completed in the sophomore year.

During the sophomore year the students have much work in the physiological laboratory, where they also make practical study

hospital work in surgery and pathology. They have five recitations and two polyclinics a week in each branch. A most valuable feature of both courses is the ward instruction, bandaging and dressing in one, and case histories, which are read before the professor and class and are subject to searching questioning and criticism from



The Chemical Laboratory of the Medical Department of the Syrian Protestant College at Beirut.

of the more important drugs in their physiological action. Frogs, street dogs—of which Beirut has a plentiful supply—and a guinea-pig farm furnish the material. Anatomy is again given five recitations weekly, and topical and surgical anatomy are specialized. Another full course is given in practical work “up stairs.” They study their future chief tools, materia medica, pharmacology and prescription writing, five hours a week. Hygiene is a course of lectures after the old-fashioned methods, for no text is printed that will cover both our idea of hygiene and the European conception of the term. Three of these lectures a week, and then four hours of general pathology fill up their schedule. The latter course is valuable as an excellent introduction to the practical and the more extended study of the last two years.

#### *The Advanced College Work*

In the junior and senior years the two classes meet together in their recitation and

all sides, in the other. When the diagnosis does not satisfy the professor, a “commission” is appointed to go to the bottom of the case and present another phase and diagnosis. Bacteriology comes at the end of the junior year and fits them for these case-takings in senior year. Diseases of the eye and ear are taught three hours weekly one semester. and most valuable instruction is given in the overwhelmingly large polyclinic and in the operating room, where towards the end of the senior year selected cases are given to students to operate on themselves.

Obstetrics and gynecology run through the junior year, three hours a week, supplemented by clinical lectures, two polyclinics a week in small sections, and attendance at operations. The obstetrical hospital is a novelty in this land, and yet the students last year saw Dr. Moore assist twelve babies to enter the Imperial Ottoman Empire without passports! In dermatology the juniors have class-room instruction three

times a week and two polyclinics where they see a large assortment of cases for two years. In connection with this department they have practical experience in using the x-rays and Finsen's apparatus.

Senior year completes the work in surgery and pathology, as has been intimated. The pediatrics course is a most valuable one in this land of such great infant mortality and ignorance of how to care for the little ones. The polyclinic and hospital wards give abundant opportunity for practical work in this branch.

In the last year they also have a three hours a week course in therapeutics. It is designed to supplement the work in *materia medica* and to teach the use of medicines, not from the standpoint of the frog and guinea-pig, but from that of the sick human being, and to give facility and versatility in prescribing. The professor is not a nihilist. Before this course was established one of our students was heard to say, "When I got through studying *materia medica* I had great faith in drugs, so much that I almost believed that if I should go into the cemetery of my village in the Lebanon and should sprinkle quinine on the graves, those who had died of malaria would rise up! But now that I have studied pathology a year I realize that all drugs are useless or worse than useless." It was to prevent such a loss of faith that the faculty established this course. If any reader of this does not know the textbook we use, Burney Yeo's "Clinical Therapeutics," he should get a copy.

#### *The Equipment of the College*

A word in regard to our equipment. The museums of anatomy, histology, normal and

morbid, ophthalmology, surgery and dermatology are fine, and are steadily increasing. The wax models of eye and skin diseases are large in number and true to life—or rather to disease! A still greater number and variety of cases, however, are seen at the clinics. The surgical museum\* contains an almost unsurpassed collection of calculi, vesical, urethral, nephritic and ureteral.

The chemical laboratory is large and is well supplied with water, gas and all other requisites. A more beautiful and better lighted histology and general pathology laboratory would be hard to find anywhere, and the same may be said of the lighting and ventilation of the "anthropotomic laboratory." The physiological laboratory is about to be enlarged to meet the pressing demand of more students and new apparatus. The bacteriology laboratory is finely equipped.



The Last Graduating Class with Professor Graham (in Apron)

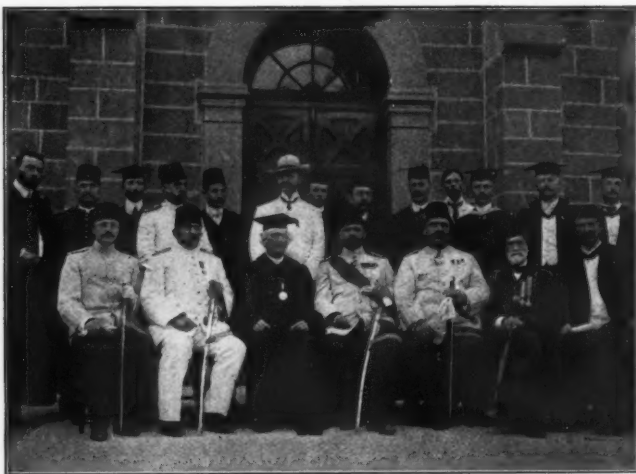
The hospital facilities are furnished by two institutions: the Johanniter Hospital, owned and supported by the noble German order of the Knights of St. John, of which the Crown Prince is now the head, is devoted to the medical and surgical cases. The medical professors are the sole attendants and the deaconesses of Kaiserswerth



are the nurses. Women's diseases, obstetrics and children's diseases are cared for in the Maria De Witt Jesup Hospitals, the separate pavilions of which are on property adjoining the university campus. Here also in a year separate pavilions for the diseases of the eye and the skin will be opened. In connection with these Ameri-

with us, and with the shorter course in the homeland, return armed with their American parchment before their former classmates have completed their course. Few of the men who are turned back a class repeat the year. Nearly all go to America.

We owe much to our great and good friend Theodore Roosevelt, who as a lad spent some weeks here in Beirut and is otherwise interested in our work. He sent a personal letter to the Sultan asking for us the same privileges in the matter of local examinations that the French demanded with a fleet of war ships for the Jesuit College here, and he got it. Accordingly, three commissioners from the Imperial Medical School at Constantinople—men of fine ability and high medical attainments—are sent at the close



The Imperial Examining Commission and the Medical Faculty

can pavilions is a training school for nurses, with a graduate of the New York Post-graduate Hospital as its superintendent.

Our system of examination is a very thorough one. At the completion of each subject a written examination is held, and the mark for it is added to the term average of the daily marks in that subject and the result divided by two. If the student thus attains a grade of 60 percent he may come up before the medical faculty for his oral examination. Passing all his subjects of the first two years, he comes up for his first two "doctorates" before the mixed jury of the Imperial Commission and the faculty. The third and fourth "doctorates" are taken at the end of the senior year. The low standard of some of our medical schools in America makes trouble for us. Repeatedly when men have failed and failed miserably with us they go to America, pass into the year they are debarred from

of each college year. They sit with the faculty and in French or Turkish examine our students of medicine and pharmacy. Those who pass this oint examination are licensed to practise in the Ottoman Empire. The president of the Commission at Commencement administers the Hippocratic oath and gives kindly counsel to the young doctors and pharmacists. The full dress uniforms of the commissioners, who all have military rank, the presence of the Governor General or his representative, the commander of the garrison, the military band which plays the Imperial March and "America" after the assent to the oath, and the bright colors of the gowns and hoods of the faculty make a brilliant and picturesque setting for the commencement exercises.

One may wonder whence these young men come and whither they scatter after they get the coveted parchments. Read the

second chapter of Acts and you will get some idea. Syria, Palestine, Asia Minor, Egypt, Persia, the "isles of the sea," Macedonia, Bulgaria, are the chief countries from which we draw our constituency. We also have a sprinkling from other European countries and from far-away America. As one would expect there is a great mixture of races—Syrians, Armenians, Egyptians, Greeks, Bulgarians, Persians and Jews are the principal races. There are many religions represented, too: Christians, Protestants, Greek Orthodox, Greek Catholics (called "Quatelies"), Maronites and Roman Catholics, Armenian Orthodox and Catholics, Jacobites and Copts; Moslems of both sects, and Druses, and Babites, and Jews;

all come and all are welcome to this Christian and missionary university. Here they cannot remain without hearing of the better way and of the Great Physician. And we trust many follow in His footsteps.

[A very important part of the story Prof. Adams has left out, and that is that he himself is a regular reader and enthusiastic user of the active-principle remedies, that he talks and teaches the active-principle idea to his class, and uses it in his public and private practice, and that through his influence many of the graduates of this splendid school are readers of CLINICAL MEDICINE who put its preaching into practice.—ED.]

## FOURTEEN YEARS WITH THE ACTIVE PRINCIPLES

Commencing with the making of tinctures, extracts and pills in a drugstore, followed by interest in the active principles aroused by reading The Alkaloidal Clinic as a physician, and why this interest has grown

By R. J. SMITH, M. D., Schenectady, New York

TIME has cast a merciful veil over my first beginnings in practice and of my patients in that far-off (though comparatively near) period. I have faint recollections of few. They were few in number, too, no doubt. Perhaps the assistance I received through intimate association with my earnest, studious perceptor and other members of a broad, unselfish profession in one of the most beautiful of Canadian cities carried me over that fearful time, when our recent graduate cuts loose from all other support except his own initiative, with less outward disturbance than falls to the lot of many.

### *The Drugstore Apprenticeship and what it Taught*

My first step along the line of medical interest apprenticed me to the drug business, where for four years my days of eighteen hours were filled with the making of tinctures and solutions, liquors and extracts, pills

and powders and the compounding of numberless prescriptions of all kinds and descriptions. Perhaps this experience added to that gained in five years of medical study, in which the study of therapeutics held a low place, led me to an early interest in the active principles. Certain it is, that the many instances of uncertainties, and often of absolute inertness of the usual drugstore preparations of that date, developed in me a desire for something more dependable, more uniform, more accurate. The active principles appealed to me as such. Looking backward, it seems to me now that my belief in their activity and dependability grew very slowly. Whence came the first literature on dosimetry I do not now recall, but distinctly I remember the first ALKALOIDAL CLINIC that came into my hands and the interest its teaching aroused. Though only a pamphlet of a few pages, it contained a great deal of meat. The nine-vial case accompanying it was a constant

pocket companion, although its contents were for a year little used. My recollection is that the "life-saver" glonoin first aroused my active interest. Aconitine in the fevers of childhood, then hyoscyamine and strychnine arsenate in spasmodic pains, and appendiceal colic, veratrine in acute congestions and calcium sulphide in "boils" forced me gradually into line, and within three years active principles filled the bulk of my prescriptions. I dispensed a good many, but prescribed more. A willing druggist placed a large stock of the Abbott goods at my disposal and increased that stock as the demands of my practice grew. I found, however, that dispensing the medicine directly to my patients gave more satisfaction both to my patients and myself, gave better results, and my success was greater in these cases.

#### *The Handicap of the Dispensing Physician*

The dispensing practitioner has a big handicap over his prescribing brother in acute cases and in emergencies. It is a pleasure to have ready to dispense remedies at hand as we have in the active principles, so compact, easily assimilated, readily dissolved and quickly acting. The patient in my experience appreciates the efforts of his physician to give him relief, and is always ready to pay cash for such service. There is also added to the certain action of the remedy a suggestive force altogether lacking in the druggist-dispensed preparation. However, the dispensing question must be settled by each, for himself, and it is not possible to lay down a law to fit every case. A certain amount of prescribing must be done if the best needs of our patient are considered.

Gradually the "arms of precision" wormed their way into my interest and I learned to depend on their certainty. They were used more and more increasingly until at the present time I use them almost exclusively. The granules of the Abbott make have been my choice for fourteen years. During that time they have proved absolutely reliable and entirely satisfactory. Often they have been blamed for poor results, for inactivity,

when detailed search has shown me my error, and usually that error has proved to be too slack elimination. It took time to grasp the fact that absorption and elimination of our medicament depends on the condition of the stomach and bowels, the liver and kidneys, and the skin. It became a routine duty to study every case from this aspect, and I invariably found my lack of result was due to torpidity of the emunctories.

#### *The "Clean-Out, Clean-Up and Keep-Clean" Idea*

Now my first prescription in every case is for calomel, podophyllin or other chologog, followed by a generous flushing of the entire canal with the pleasant and efficient saline laxative. "The clean-out, clean-up and keep-clean principle" is most important. If for no other one thing, credit must be given unstintedly to Dr. Abbott for so constantly and everlastingly forcing this fact upon us. It is one of the simple common-sense things to do and the one thing practitioners so often neglect and take for granted. On the neatness and dispatch with which this principle is carried out depends the comfort and quick convalescence of our patient and, better, the prevention of disease itself. With the organs of elimination in normal activity, disease is held at bay. The opsonic index is then at its highest, the leucocytes are then most active, the red cells are their reddest and nerve impulses flow freest.

In addition, credit is also deserved for the growth of the intestinal-antisepsis idea. Dr. Abbott did not originate this principle. Intestinal antiseptics were used before his day and recommended by the old practitioners in certain cases. But it is not alone having knowledge of the good of a certain measure that leads us to its adoption. Reiteration of a thing is necessary to impress it on our fickle memory. Clinical experience developed its importance, and the reiteration of this good thing forced its importance on us, and it is now a recognized fact.

The alkaloidal idea did not originate with Dr. Abbott. Some practitioners seem to

accuse us of such belief. He early in practice recognized the benefit to be derived from pure, active, constant medicaments and against the most determined opposition has forced truth home. But years before him Burggraave of Ghent had gained a numerous following along the line of dosimetric thought. Some alkaloids were known before Burggraave. He but grasped the opportunity presented and formulated rules of procedure evolved from his clinical experience, such as "to acute diseases oppose acute treatment, to chronic diseases, chronic treatment;" also "when it is desired to obtain the effect of a medicament, it must be given to the point when that effect is obtained." This we condense into "give to effect, irrespective of the dose." Knowing nothing of the quantity that constitutes a dose in individuals, Burggraave gave small quantities frequently repeated until the effect was obtained. "Small doses facilitate the absorption of the medicine and make it certain that the needed quantity shall not be exceeded."

Prof. Laura, Turin, said twenty-five years ago: "I am profoundly and seriously convinced that this new dosimetric method is a grand progress in the science and art of medicine, it restores to the physician an abiding faith in the curative powers of his art, while it spares him the dangers of an excessive treatment and that it renders to suffering humanity services much superior to those of ordinary medicine. The dosimetric method contains the germ of a perfection which time and science will develop from year to year."

Judge of the truth of this statement by the progress of this therapy during the past dozen years in these United States. Such progress is epitomized in the remarkable development of THE ALKALOIDAL CLINIC, a small, though compact, little pamphlet that first claimed our support, into the

magnificent, practical monthly now given us by the enthusiastic, hard-working, energetic editor and his able staff.

#### *Advantages of Active-Principle Therapy*

The therapy of the active principles differs often greatly from that of the cruder tinctures and fluid extracts. When the medicinal activity of a drug is represented by one active principle, as aconitine in aconite root, the active principle occupies the same



DR. R. J. SMITH  
An Enthusiastic Follower of CLINIO Teachings.

field of action as the parent drug, but in a more refined sense, more definite, safer. It is when the plant contains two or more active principles that a separate individual study of each must be undertaken to outline carefully the field of therapeutic action of each active principle. Such efficient study has produced a wealth of material, not yet properly sifted perhaps, but containing many definite, clinically proved

facts. Many new remedies have been isolated, many are in process of isolation, leaving still many instances of plants containing perhaps remarkable therapeutic properties now unguessed at. Many plants have remedial actions, but their active principles are still unknown.

That the future will give these to us and so refine the dosimetric method that it will be lifted to the dignity of a science and restore to the profession that place rightfully ours, ours by right of the material good to mankind done in the past, doing now and to be increasingly done in the future, cannot be doubted. The millennium, when all will obey the laws of health and become healthy, when doctors will find their profession outgrown, is altogether chimerical. The poor in all probability

will always be with us and our services in greater demand.

The aim of all students in medicine should be the perfection of those means by which disease processes may be alleviated, among which physical agents hold an important place, but not to the exclusion of medical agents by any means. Exactness in therapeutic agents will bring an exact therapy and will give exact results. To this end the development of the active-principle idea is a grand step forward along the line of positive advance in the rationalization of therapeutics, with a glorious future before it, giving us more efficient arms than we now possess, even in these latter days of medical confidence of a willing public, and dealing the deathblow to quackery in all its forms.

## ACTIVE-PRINCIPLE THERAPY AND SCARLET-FEVER

Advantages of the small, repeated-dose idea, and of the administration of the active principles, as especially illustrated in the treatment of scarlet-fever

By W. F. RADUE, M. D., Union Hill, New Jersey

Author of "Dosimetric Treatment of Children's Diseases"

IN looking back over the battle waged by our Dr. Abbott and his colleagues for a more modern and up-to-date method of treating disease, and while considering the many arguments of our critics as to the "whys and wherefores" of the new idea, and the wonderful success obtained by perseverance and hard work, I can only say, with the rest of our brethren, "They have fought a good fight," and, thank God, the battle is won. The tide is getting stronger every day in favor of this most modern and only successful way of treating the diseases of mankind—the alkaloidal, or dosimetric, method.

### *Advantages of the Small Repeated Dose*

As I have always said, we can not treat all diseases by alkaloids alone; but we can treat all diseases by small and oft-repeated

doses of medicine, or by the dosimetric method. In that way we can most successfully treat the diseases in hand. By giving a small dose of medicine every fifteen minutes to half hour, until the desired effect is obtained, one can then reduce the dose according to the circumstances of the case. Not alone will this method produce better results, but the remedies themselves are more pleasant and we avoid the large and nauseating doses of our fathers. This is especially important when one has to deal with children and sensitive patients; and not alone are the results better, but from a financial viewpoint it is desirable; you will notice an increase in your practice and beside this, you get your patients to come to you for refills, for which you can charge a reasonable fee, thereby making the profit for yourself instead of letting the



druggist, who as a rule has got no use for you, get that which rightfully belongs to the doctor.

I am sorry to say that the honesty of many druggists is questionable. Proof is plentiful that substitution has been practised to an alarming extent during the past few years. I earnestly recommend all physicians to dispense their own medicine, especially the granules, which are so readily given and nearly all soluble in water so that they may be given to the smallest of children. It will not take up any more time to dispense the granules than it takes to write a prescription, for which you may have to wait three or four hours before it comes back from the druggist. By giving your own medicine at once, the needs of the patient are immediately supplied when most required. I have often had patients tell me they had to wait a whole day before they got their medicine from the drugstore, but with me it happens no more.

I carry my drugstore with me in the shape of a No. 6 medicine case, which holds variety enough to treat anything and everything in sight. Just think what a delay of a few hours may mean in a serious case. Why, it may mean life or death. I take no more chances!

As to my treatment of scarlet-fever, I proceed as follows: For a five-year old child I start by giving a 1-6-grain granule of calomel every half hour until eight have been taken, these to be followed by saline laxative; or I sometimes give a 1-6-grain granule of podophyllin with every third dose of the calomel. After the bowels have moved I begin with the intestinal antiseptic (sulphocarbolates), giving one grain well diluted with water every hour or more. I double the above dose if this becomes necessary.

If the temperature is high, say  $103^{\circ}$  to  $104^{\circ}$  F., I put five granules of aconitine and five of dosimetric trinity in twenty-four teaspoonfuls of water and give a tea-

spoonful every half hour for six or eight doses, and then every hour until the temperature falls to  $101^{\circ}$  F. or less; after this I give it every one, two or three hours to keep it beyond the danger point. In some cases it is necessary to double the above dose before the desired results are secured, while in others, in addition to the above, it is well to use the warm bath, gradually cooled from  $90^{\circ}$  to  $70^{\circ}$  F. or less,



DR. W. F. RADUE

Who has made notable contributions to alkalometric literature.

to bring down the temperature. This must be repeated as often as necessary until the desired results are accomplished. In many cases I find that the application of cloths wrung out of ice-water applied over the head and the glands of the neck helps to keep down the temperature; in many cases the cold to the neck will prevent involvement of the glands and prevent their supuration. If supuration occurs, open at once and wash out with a 25-percent solution peroxide of hydrogen, dry and dress with a wet 2-percent boric-acid solution.

This will prevent infection and produce a rapid healing of the wound.

In some cases it is necessary to use some antiseptic powder or ointment to cause healing. In indurated glands, without supuration, a 10-percent oleate of mercury ointment rubbed in the glands twice a day will cure or you may use a freshly made iodine ointment. Use as above described until cured.

#### *Calcium Sulphide Given to Saturation*

The internal medication consists of calcium sulphide given to saturation; when this is accomplished, reduce the dose, but give enough to keep the breath smelling of the sulphide until desquamation is well advanced, when you may reduce the dose or dispense with it altogether. At this time I always anoint the whole body of the patient with borated vaseline, 6-percent, daily, after giving a warm bath to wash off the epithelial scales of the day previous. Be careful not to expose the patient to any drafts when you give a bath or the patient may get some serious complications.

For spraying the throat there is nothing better than the "menthol-compound" tablets (Abbott). Dissolve one or two in one-half glass of water; this solution is to be sprayed into the throat every hour. Older children can use it as a gargle.

If complications occur, such as diphtheria or croup, you must treat accordingly. Although these complications are of a very serious nature, timely treatment, pushed to full effect, will save many cases of diphtheria. Inject at once 5,000 units of antitoxin; Lederle's refined concentrated is my favorite. Repeat this in twelve hours if necessary. No two cases can be treated

alike. You will have to be the judge in every case. Spray the throat every half hour or hour with a solution containing 25 percent each of peroxide of hydrogen and listerine, and blow a powder consisting of equal parts of trypsin and sodium bicarbonate into the throat every hour or two. This will dissolve the membrane and clean the throat. In many cases in addition to the above treatment I now inject from 10 to 20 drops of nuclein under the skin, twice daily, and I earnestly urge its use, as it has saved for me many cases of a serious character. Do not forget to give good liquid nourishing food throughout the disease.

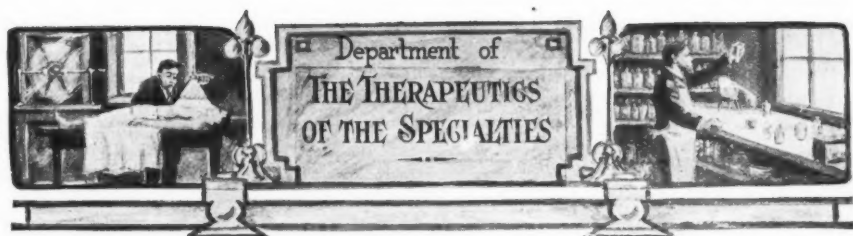
#### *The Renal Complications*

If renal complications occur give digitalin, apocynin and asparagin. Diuretin and potassium and sodium acetate are also excellent. Push to full effect, then reduce. As I treat all of my scarlet-fever patients now with dosimetric trinity from the start I seldom have any renal trouble; as the dosimetric has digitalin in it they get under its influence at once, thereby preventing renal complications in many cases.

In convalescence give triple arsenates with nuclein after meals, and quassin before meals. This is best given diluted, as it has a better effect in dilution.

With the foregoing treatment of scarlet-fever and its complications you can save the majority of cases. In closing I will say that if croup is a complication you must push the calcidin to its full limit, but as a complication of scarlet-fever croup is in nearly every case of a diphtheritic nature and must be treated as such. If necessary you may perform intubation or tracheotomy to save life.





## THREE INTERESTING CASES OF EPITHELIOMA

Illustrating three common types of skin cancer, giving their etiology, pathology and distinctive characteristics, and devoting special care to their treatment, both constitutional and local

By JOHN V. SHOEMAKER, M. D., LL. D., Philadelphia

Professor of Materia Medica, Therapeutics, Clinical Medicine and Diseases of the Skin in the Medico-Chirurgical College and Hospital, Philadelphia.

I PROPOSE reporting to the readers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE three patients suffering from epithelioma, each having a different variety of the disease.

### *A Case of Papillary Epithelioma*

Patient No. 1. This patient, whose age is fifty-two years, nativity Germany, four months ago first noticed a papule the size of a small pea, appearing on the left lower lip at the mucocutaneous junction. A month later another papule developed near the left angle of the mouth. Both papules are fissured and covered slightly with exuberant granulations from which a thin sanious secretion issues. The portion of the lip ulcerated is infiltrated, and in appearance much thicker than the opposite half of the lip. The patient states that at times he feels a sharp shooting pain, but it is not so severe that it interferes with his sleep. The patient does not smoke nor can he remember any traumatism received to his lip. His general health otherwise is good.

This patient had, undoubtedly, papillary epithelioma, which generally begins as a wart-like formation, elevated above the adjacent cutaneous surface, and varies in size from that of a split-pea to that of a chestnut. In some rare instances it appears as a large lobular or spongy excrescence, de-

veloped during the ulcerative stage of one of the other varieties of the disease. The surface may remain moist or may become covered with masses of crusts and scales, and finally breaks down into an irregular, open and painful ulcer. In this patient the papilloma is situated superficially; hence the ulcer will remain superficial for a comparatively long time. In the majority of cases, however, it is imbedded in the subcutaneous connective tissue, the ulcerative and infiltrative processes extend widely and deeply, and the disease pursues a malignant course.

### *Superficial Epithelioma of the Nose*

Patient No. 2. In this man the lesion is situated on the nose, where it first appeared as a papule which he squeezed. He states that the spot was of a glistening, yellowish white in color and in size as large as a number twelve shot. After he had pressed it a thin yellowish secretion exuded which formed a thin brownish crust. The lesion showed no tendency to heal but in appearance was not unlike that of an ordinary abrasion.

The disease is of fifteen years' duration, during which time it gradually spread peripherally by added nodules, which are commonly known as cancrioid corpuscles, and are characteristic of this affection. They

can readily be picked out of the skin and when rubbed between the fingers crumble into small particles, which, when examined under the microscope, are found to consist of epithelial cells of various shapes and sizes.

The skin around the edges of the ulcer is infiltrated and of a very dark red color. The patient complains of very little pain. From the history of the onset, the chronic course and the irregular, superficial, sharply circumscribed ulcer with infiltrated perpendicular sides, we can safely diagnose this as



DR. JOHN V. SHOEMAKER

Who is not only a well-known medical teacher, but the distinguished author of Shoemaker's "Materia Medica and Therapeutics" and other books, and editor of The Medical Bulletin.

a superficial epithelioma. This variety of epithelioma usually manifests itself by the development in the upper layers of the skin of one or more small papules, as was the case in this patient.

#### *A Cancer of the Lower Lip*

Patient No. 3. This patient had a mole on the left lower lip which he thought became irritated due to the smoking of his pipe, two years ago. The mole at first became hard and painful, and the lip hard and swollen.

Later a few hard nodules developed, which had an inflammatory areola. The nodules increased in size and gradually coalesced, forming the present large irregular tumor of infiltration, involving the entire half of the lower lip. The surface of this mass is in a stage of ulceration, the base of which is covered with a thick yellowish secretion; the edges are everted, the surface bleeds easily when touched, and is the seat of sharp lancinating pains. The submaxillary glands are enlarged and hard.

In this case we have the typical deep-seated or infiltrated form of epithelioma arising from the mole. Generally this form of epithelioma begins with the formation of one or more large round nodules in the subcutaneous connective tissue. The lesions vary in size from that of a small shot to that of a bean, and are light red or purplish in color.

#### *The Seat of Epithelioma and its Differential Diagnosis*

Epithelioma is a disease of middle and advanced life. It is rarely found in patients under forty years old, and is most frequent between the fiftieth and sixtieth years. It is more common in men than in women, and is more frequently met with on the face and in the genital region. The conjunctiva, pharynx, larynx, nipple, labia, vagina, uterus, scrotum and penis may be attacked by any variety of epithelioma. The anus and rectum also are subject to the disease. Epithelioma has sometimes been observed upon the abdomen, the backs of the hands and upon the scalp. The diagnosis of epithelioma is easy in the advanced stages, but it might in the beginning of an attack be confounded with the lesions of syphilis, and lupus vulgaris, or with ordinary warts, simple condylomata or seborrhea sicca. The differential diagnosis is shown in the following tables:

##### EPITHELIOMA (Papule)

1. No history of infection
2. Evolution slow
3. Lancinating pain

##### SYPHILIS (Hard Chancre)

1. History of infection
2. Evolution rapid
3. No pain

## EPITHELIOMATOUS ULCER

1. History of heredity
2. Lesion single
3. No history of concomitant signs
4. Evolution slow
5. Edges of ulcer hard and indurated
6. Secretion of ulcer blood-streaked, viscid and scanty
7. Lancing pain
8. Occurs late in life

## EPITHELIOMA

1. Occurs late in life
2. Lesion single
3. Lesion surrounded by zone of infiltration
4. Ulcer deep
5. Secretion blood-streaked, viscid
6. Course more rapid
7. Lancing pain

## EPITHELIOMA (Papillary)

1. Lesion painful
2. Lesion usually single
3. No history of infection
4. No concomitant signs
5. Occurs in advanced age

## TERTIARY SYPHILITIC ULCER

1. History of chancre
2. Lesion multiple
3. History of concomitant signs
4. Evolution rapid
5. Edges of ulcer not indurated
6. Secretion of ulcer fetid, yellow and abundant

7. Pain, absent
8. Occurs at any age

## LUPUS VULGARIS

1. Occurs usually during childhood or early youth
2. Lesion multiple
3. Lesion surrounded by characteristic papules and nodules
4. Ulcer superficial
5. Secretion abundant yellow and puriform
6. Course very slow
7. Pain absent

## "CONDYLOMATA

1. Lesion not painful
2. Lesion usually multiple
3. History of infection
4. Concomitant signs of syphilis
5. Usually occurs in youth or middle age

known as an unusual length of the intercapillary processes which project down into the corium like the fingers of a glove. Later the blood-vessels become dilated, the deeper layers of the skin become infiltrated with serum, and the lymph-spaces crowded with wandering cells and lymphoid corpuscles. The projecting finger-like processes of the rete mucosum increase in size and divide into branches, which unite with each other to form a framework of epithelial tissue. The cells of which they are composed become pressed together and form compact masses of various shapes and sizes. In papillary epithelioma there appears to be a combination of papillary hypertrophy and epithelial proliferation. Finally, in all cases, the gradually increasing pressure of the epithelial cells interferes with the circulation. The small papillae and their arteries become obliterated and the larger vessels are lessened in caliber. Degeneration and ulceration soon appear and mark the beginning of the second stage of the disease. The patient's health is not much affected while the ulceration remains superficial, but when it extends to the deeper tissues the neighboring lymphatics soon become affected and through them the entire system becomes profoundly involved. The composition of the blood is altered and degenerative changes, with the production of toxic products, occur in various tissues. The alkalinity of the blood is decreased and the destruction of albumin is increased irrespective of the nature and amount of food consumed. Muscular tissue and parenchymatous organs undergo fatty degeneration

*The Etiology of Epithelioma*

The cause of epithelioma is unknown. Many theories have been brought forward but none have stood the test. In some cases, however, the disease seems to be due to long-continued pressure or other mechanical irritation such as the irritation of a broken tooth, contact with paraffin, the irritation of soot in the folds of the scrotum producing chimney-sweeper's cancer. Cases of cancer often occur in which no source of irritation or of traumatism can be discovered. Old

It is difficult and even impossible clinically, at times, to decide whether a new wart-like formation is the initial lesion of epithelioma or only an ordinary wart. The difficulty is increased by the fact that an apparently simple wart after the lapse of many years may undergo degenerative changes and become converted into an epithelioma. However, as a rule all such warts develop after the age of thirty years and should then be looked upon with suspicion and removed at once; especially should they be removed when they make their appearance upon the lip, nose or near any orifice of the body.

Sometimes in the early stages of epithelioma of the face there is a congestive, scaly condition which resembles seborrhea sicca. Seborrhea sicca is widespread and other portions of the body are involved at the same time, while epithelioma is limited in area, single and accompanied sooner or later by characteristic small waxy nodules, the so-called "cancroid corpuscles."

*The Pathology of Epithelioma*

Microscopically there appears to be an inward growth and continuous multiplication of epithelial cells of the rete mucosum. The inward growth and continuous multiplication of epithelial cells forms what is



scars, preexisting warts, nevi, and sebaceous cysts frequently undergo degeneration without any apparent cause and become the seat of epithelioma. A predisposition to this malady seems to exist in some families, and nearly 60 percent of the cases give a family history of cancer.

The more recent theory is that all cancers are of a parasitic origin. Many cases have been met with and reported which excited the suspicion that the disease was transmitted from one individual to another.

#### *Methods of Treatment*

The treatment largely depends upon the extent of the disease and upon the constitutional condition of the patient. The patient with the superficial epithelioma upon the nose needs constitutional treatment to build up his general state of health. A good nutritious diet is of all-importance in all these cases. Of course meat should be taken sparingly, but well-cooked and easily digestible vegetables, eggs, milk, and cooked fruits of all kinds may be freely taken.

#### *The Constitutional Treatment*

Next in importance to the diet in epithelioma should be the constitutional treatment. Among the many remedies that will act upon the secretions, the blood, and the skin cells are the preparations of iron, manganese, sulphur, mercury, iodine, arsenic, and cod-liver oil. In employing one or the other of these hematinics or blood tonics as well as alteratives, the secretions, blood and tissues are so modified or changed as to give better digestion, assimilation and nutrition to the general system, and the tissues involved are thus enabled to take upon themselves some reparative action.

At times arsenic, given as the trioxide in from 1-50 to 1-20 of a grain, alone or combined with sulphur or calcium sulphide, may accomplish the very best results. Arsenic sulphide and iodide are valuable preparations. In other instances iron, alone or combined with manganese and arsenic (as iron arsenate) has systemically the most happy results as well as the most powerful local action in altering the intense malig-

nant action of the skin-cells. Mercury, iodine or codliver oil are in some cases remarkably efficacious, given either combined or alone, to tone up the system and modify the local destructive action of the tissues. In the first patient I ordered the following combination for its systemic action:

Strychninæ sulphatis....gr. 3-5

Liquoris acidi arsenosi...drs. 2

Acidi hydrochlorici diluti...oz. 1-2

Glyceriti pepsini, q. s. ad.ozs. 3

M. Sig.: One teaspoonful in a little water after each meal.

#### *The Local Treatment*

In addition to the necessary constitutional treatment just enumerated, local remedies are also imperative in each and every case: first, for the purpose of removing all malignant cells and tissues, and secondly, for the antiseptic action upon the diseased structures. In the first patient the involved parts have been thoroughly cureted, then pure phenol is being applied two and three times a week as an antiseptic and stimulant. In addition, galvanism or the x-ray may be employed two or three times a week for the stimulating, sedative as well as antiseptic action of either of these agents. As an after-treatment, the parts are covered once or twice a day with very finely powdered red cinchona bark, which is one of the best stimulating, astringent and antiseptic powders that can be used in epithelioma.

The other two patients described are not amenable to medicinal treatment alone; we must have both of them operated upon by having the malignant mass in each excised. After the operation, galvanism or the x-ray are productive of much good in producing a stimulating, sedative, and antiseptic action upon the diseased tissues. The galvanism or the x-ray properly applied are of much good for the action just named. Either of these agents, however, is not of much benefit without first the operation of excision. The systemic treatment that has been outlined must be given in each one of these cases also, continued after the operation and during the galvanism or x-ray treatment.

The prognosis varies with the age of the patient, the form, duration, and location of the disease, and the presence or absence of glandular involvement. The superficial variety, as in the first patient, when thoroughly removed, will heal and will not as a rule recur. The deep-seated and the papillary forms, on the other hand, are always grave. In the second and third patients,

even after the disease has been thoroughly excised and even with the application of the x-ray or galvanism, together with the systemic treatment, the disease is apt to recur within one or two years. Most cases of papillary epithelioma die within two years after the onset notwithstanding all the treatment, medical or surgical, that may be tried in the interval.

## A BRIEF ON PROSTATECTOMY

A defense of this operation, which is shown to have a large field of usefulness and to be desirable in a large percentage of cases; with the indications for its use and a description of the technic

By G. FRANK LYDSTON, M. D., Chicago, Illinois

Professor of the Surgical Diseases of the Genitourinary Organs, and Syphilology, Medical Department, University of Illinois

THE prostate has now an established position as a legitimate operative field, which has been attained by a battle of nearly a quarter of a century with so-called conservatism. The profession in general is still woefully negligent of its duty in obstructive disease of the prostate. The organ had been for so long a *noli me tangere* that medical men were slow to disabuse themselves of prostatic fatalism.

It will probably be some years before the general practitioner and the laity will have learned that prostatic enlargement is not a necessary concomitant of old age, and an affliction which must be patiently borne with such relief or agony, according to circumstances, as the catheter may give. Cases of old men who have used the catheter with benefit for many years are still advanced as convincing arguments in favor of routine catheterism. Scarcely a layman of advanced age can even now be found who does not believe that prostatic disease is something which is not only incidental to, but well-nigh inseparable from, advancing years. If he has chanced to hear of the radical treatment of prostatic disease, he is imbued with the notion that operation is a most desperate remedy, and only to be employed as a last resource.

Should he consult his family physician upon this point, his fallacious ideas of the subject may still be confirmed.

### *Some Points to be Borne in Mind*

As I so often have said in my writings, the surgery of the prostate will never have a fair opportunity for development until the following points are understood:

1. Prostatic enlargement is not a necessary concomitant of senility, and is not due to senility *per se*, but to slowly operating conditions which do not result in obstruction of the vesical outlet sufficient to produce symptoms, in most cases, until advanced life. The symptomatology of prostatic enlargement is usually some years behind its pathology. The clinical history of the disease, as usually gleaned, is inaccurate, the practitioner taking as his starting-point the first symptoms which are sufficiently severe to drive the victim to the doctor.

Acute retention is frequently the first alarming symptom that is heeded. It would seem obvious that prostatic obstruction sufficiently marked to cause retention must have been slowly developing for years. *The retention is due, not to the prostatic overgrowth, per se, but to the overgrowth, plus spasm, congestion or actual inflammation.* The slowly

growing prostatic overgrowth plays a preparatory rôle and the "plus conditions" the active rôle in retention. I have repeatedly called attention to what I have termed these "plus conditions" in all forms of obstructive disease of the urinary way.

2. Prostatic obstruction, when it once begins, almost inevitably progresses to the point where it produces residual urine and possibly complete retention.

3. Catheter life lasts on the average only about five years. Infection of the bladder, ureter and kidney usually occurs sooner or later and destroys life after a variable period. If infection does not occur, the backward pressure upon the kidney produces degenerative renal changes which lessen the patient's power of resistance and invite a fatal result in any intercurrent disease, especially if infectious.

4. The foregoing being established, the necessity of surgical intervention is proved and the time at which the operation should be done alone remains to be decided. If the prostatique is to enjoy the advantages offered individuals suffering with other diseases amenable to surgery, operation should be performed immediately upon the development of annoying and progressive symptoms, due deference being paid to possible congestive and inflammatory affections of the organ amenable to non-radical local and general treatment. I make this qualification with the proviso that it should be understood that obstinate inflammatory enlargement and congestive hyperplasia of the prostate at about middle life or beyond it is more than likely to result in true prostatic enlargement later on.

#### *Advantages of Early Operation*

The earlier the operation, the fewer obstacles to its performance. Many cases in which, if the operation be performed early, enucleation of the adenomatous growths is readily performed, will, if allowed to progress, undergo changes which make the operation difficult. I believe that, in a majority of cases, the difficulty is primarily distinctly glandular, beginning as adenoma. The adenomata, by their mere mechanical

effect, cause congestion and irritation. Proliferation of connective tissue occurs in an effort on the part of nature to encyst these growths. The stroma of the gland participates in the connective-tissue hyperplasia. Later on adenoma is replaced by adenofibroma. Later still adenofibroma is replaced by a fibroid degeneration. This may be more or less circumscribed in certain areas, or diffuse. It will be understood, of course, that certain cases do not conform to the course I have outlined, fatty degeneration of the prostate and atrophy associated with general fatty or atheromatous degeneration being not infrequently seen.

It should be unnecessary to emphasize the vast difference in the danger and mortality of operations performed at an early period, before infective bladder, ureteral and renal changes have occurred, and those late operations in which complications have arisen and the operation is performed in a septic field. I state unhesitatingly as my opinion that early operations upon the prostate in otherwise healthy subjects, in whom kidney, ureter and bladder are sound, are, in competent hands, not more dangerous than interval operations for appendicitis. It is certainly not more serious than an ordinary perineal urethrotomy, and by no means compares in severity with the lateral operation for stone.

#### *Why Most Statistics are Valueless*

The statistics of prostatic surgery thus far gleaned are almost valueless, for the reason that the cases operated on have not been classified and in many cases have submitted to the operation as a *dernier ressort*, to say nothing of the varying competency of operators. I reiterate here the plea I have so frequently made for more careful supervision of the urinary function in the male, the early diagnosis of prostatic hypertrophy, and immediate operation in progressive cases. By this plan only will prostatectomy eventually be placed upon a plane somewhat similar to that occupied by ovariectomy, an operation which, when it was performed as a last resort, was attended by tremendous fatality. Now that

the mere discovery of an ovarian tumor is universally accepted as an indication for operation, the mortality is extremely slight.

*Indications for Operation and Selection of Cases*

It is necessary to consider several factors in the conditions presented by different patients, the importance of the age of the patient being only secondary to the condition of the bladder and kidney, and especially the former.

1. Patients at or not far beyond middle life, with sound bladder and kidney, and pronounced, progressive symptoms of prostatism. These should be operated upon, as a rule, as soon as palliation is found to be ineffective, and the catheter becomes necessary from recurrent retention.

2. Patients of the foregoing class in whom slight or moderate pathologic changes of the bladder, ureter and kidney have occurred. These should usually be operated upon.

3. Cases at about the mid-period of life, in whom serious renal disease exists. These cases should be treated by palliation, either by the catheter or simple suprapubic drainage.

4. Progressive cases of from fifty-five to sixty-five years of age, in which the bladder and kidneys are, either sound or not severely diseased. Operation is here indicated. In this class of patients, where serious bladder and kidney disease exists, operation may be inadvisable.

5. Cases in patients above sixty-five years of age who have already begun the use of the catheter, and in whom the bladder is not septic. These cases should not be operated upon, as a rule. Where serious complications exist, it is necessary, in such cases, to resort to palliative operations. In case the kidneys are seriously disorganized, however, surgical means of intervention may be absolutely contraindicated.

There are many cases, to be sure, in which patients in relatively advanced life may be operated upon. In cases in which the patient is seventy years of age and upward, in whom the use of the catheter is not attended with discomfort and the patient remains in a satisfactory condition, generally and locally, there is a question in my mind as to whether the operation



DR. G. FRANK LYDSTON

Well known, not only as medical teacher and author of professional text-books, but also as a story-writer and novelist.

should be performed save in exceptional instances.

In cases of advanced age in which catheterism is not performed with facility or fails to make the patient comfortable, radical operation should be considered. In many instances, however, it is better to perform a palliative operation for suprapubic drainage and reserve prostatectomy for later performance. In some instances permanent suprapubic drainage is, in my opinion, the only operation permissible.

My conservatism in regard to radical operations in patients of very advanced age is inspired not only by what I believe to be the best interests of the patient, but also the best interests of the surgeon. Every fatality resulting from prostatectomy counts for more on the part of the laity and the general practitioner than a dozen cases successfully operated upon. The lay and professional bias here is very much stronger and less rational than in most fields of operative surgery.

There is a tendency on the part of enthusiastic workers in the field of prostatic surgery to routinism. In some instances the routine operations are performed by men who exhibit the most careful discrimination in other surgical fields. The perineal operation is the operation of election where it is practicable. That it is practicable in all cases I do not believe. I have met with cases which I believe no man living could possibly have operated upon successfully by the perineal route, combined operation having been necessary. It is well to begin by the perineal route and to add suprapubic incision where necessary. Perineal incision not only does not complicate the operation, but facilitates drainage, which can be performed by the through and through method, a method which is probably the best thus far devised.

It is the fashion of some surgeons to make a prolonged cystoscopic exploration. This is often done under anesthesia. I assert unhesitatingly my belief that in the majority of cases cystoscopy is not only useless, but dangerous. The danger of any subsequent operative procedure compounds rapidly with every preliminary exploration, and especially if anesthesia be employed. In most instances the only result obtained is the demonstration of cystoscopic expertness on the part of the surgeon, and the gratification of his curiosity as to the appearance of tumors which, if he understands his business, he well knows he must remove by operation sooner or later. I have met with a number of cases in which I am confident the life of the patient was destroyed by diagnostic overenthusiasm.

The patient should be prepared for operation by a preliminary urinary antisepsis *via* both internal medication and vesical irrigations. Rest in bed for a few days is usually advisable, but in elderly patients it should be employed with great circumspection, as they become debilitated very rapidly under confinement. Flushing of the kidney by means of liberal quantities of pure spring water is, of course, essential. Care should be taken in the matter of diet. These patients, other things being equal should receive a liberal amount of food of nourishing quality, due deference being paid to the condition of the stomach with reference to its capacity for digestion of solid foods. It is well to ascertain the individual peculiarities of the patient in regard to his dietary, and after determining the kind of food which best agrees give him plenty of it.

As is true of all operations involving chronic obstruction and infection of the genitourinary tract, chloroform preceded by hyoscine-morphine is the anesthetic to be used. Ether, in my opinion, should be given only in very exceptional circumstances, which it is hardly necessary to discuss here.

The patient is placed in the usual lithotomy position, and after the introduction of a sound or grooved staff the thighs are flexed strongly upon the abdomen. In this position the prostate is brought much nearer the surface of the perineum than in any other. After the usual preliminary asepsis, a median longitudinal incision is made in the perineum, from well forward toward the scrotum to a point just in front of the anus. Instead of the linear, a curvilinear or Y incision may sometimes be made with advantage. The preliminary incision should include all of the tissues down to the urethra for their entire extent. When the V is made, the flaps should now be dissected up and laid back upon the buttocks, the corners of the triangular flaps being stitched well up on the buttocks by a retention suture of silk. The rectum and anus being well drawn down by a blunt retractor, the incision described will be found to give all the room which it is possible to obtain.



The wound made by this incision is during the operation formidable enough in appearance, but when the flaps are replaced and stitched it differs from the ordinary median incision for perineal urethrotomy only in the existence of the arms of the Y.

While the linear incision is usually effective, there should be no hesitancy in making freer incisions, if necessary. The important parts should be freely exposed by the elevation of flaps, if required. These flaps are composed only of skin and fat. In my perineal work I have no hesitancy in making as large incisions through these tissues as are necessary to facilitate operation. By careful dissection the perineum is opened from above downward, so as to expose the membranous urethra and the capsule of the prostate. An incision is now made in the membranous urethra, the sound withdrawn, and the instrument herewith shown introduced into the bladder closed. It is then opened and the handle of the prostatic tractor given to an assistant. With this instrument it is possible to bring the prostate down within reach with greater ease than with other instruments.

It is probably a matter of indifference as to whether the capsule of the prostate is opened from the urethral side or from the perineum, in introducing the finger for the purpose of enucleation. In most instances the former method has seemed to afford greater facility of enucleation. It is my usual custom to open the prostatic capsule first on one side and then on the other. In some instances I have operated successfully by opening the capsule from one side and then traversing the urethra and opening the opposite side from the urethral surface. The capsule having been exposed, a pair of blunt-pointed scissors is plunged into it and then opened, tearing it sufficiently to admit of the introduction of the finger. Enucleation is now proceeded with. I avoid where possible any cutting or tearing with instruments after the prostatic capsule has been opened. In early cases such instrumental work is unnecessary, the finger being here all-sufficient. I have hitherto seen no objection to

allowing the prostatic capsule to remain. In some cases it is necessary, on account of extreme fibrosis, to remove the prostate, capsule and all, with cutting forceps by *morcellement*.

The adventitious tissue of the prostate having been removed, the bladder is carefully explored with the finger for stone, the prostatic tractor withdrawn and replaced by a good-sized perineal drain, around which strips of iodoform gauze are loosely packed. The external wound is sutured with catgut or silkworm gut and the drainage tube fastened *in situ*, with a strand of heavy silkworm gut passed through the tube and the edges of the perineum. The ordinary dressings for perineal section, with a T bandage over all, are now applied.

The tube is withdrawn in three or four days, or more, according to the degree of infection of the bladder and the condition of the urine. It is nothing unusual for the urine to pass *per vias naturales* at the end of five to eight days. Incontinence of urine, in spite of the beautiful results reported by some of my confrères, may be expected to occur occasionally. It must be remembered, moreover, that no method of operation yet devised has subverted the pathology of prostatic disease to the desires of the surgeon. No matter what method of operation may be performed in an old man, senile bladder and kidneys are left behind, and the degree of perfection with which they carry on their functions is determined by conditions over which the surgeon has absolutely no control.

When I read large series of cases of prostatectomy without complications, failures or untoward results, I feel like congratulating the operator upon his ability to perform miracles, and convert, by his routine operation, whatever it may be, the bladder of an old man into that of a young one, and to guard against accidents that are inevitable in every field of operative surgery. The spring from the "touch-me-not" theory of prostatic disease to the assertion that operation as a matter of routine is always safe and invariably successful is too mighty for the imagination.

## HYPEREMIA AS A THERAPEUTIC AGENT

The adaptation of hyperemia, active and passive, to therapeutic uses, as introduced by August Bier, Germany; with a description of its technic and its range of usefulness

By EDWARD A. TRACY, M. D., Boston, Massachusetts

Orthopedic Surgeon to Mt. Sinai Hospital

TWO comparatively recent contributions to practical medicine merit universal commendation. Both are the work of scientific men, and have stood the greatest of tests—clinical results by competent observers. Both are studies of curative agencies in the blood, that nature makes use of in the cure of disease. One, the opsonic treatment, the work of Sir Almroth E. Wright, of London, is of great scientific interest because it demonstrates new theories of cure in various bacterial diseases. Its employment, however, as yet, is for the skilled laboratory worker only, and it will be a long time, probably, before opsonic treatment will be available for the general practitioner. Its importance is great for another reason, for it gives a death-dealing blow from scientific quarters to the therapeutic nihilism that has for so long held sway in medical centers of education. Of course a vast number of clinical observers, for example, the followers of Waugh and Abbott, needed no Wright to make them optimistic in the treatment of disease; they have the evidence of their personal experience with efficient drugs for the firm basis of their therapeutic optimism.

The other contribution to practical medicine, is the hyperemia treatment by August Bier, now Germany's leading professor of surgery. Bier's work cannot be overestimated. For years his confreres have fought his opinions by the stinging, heartaching method of quietly ignoring his claims. Now these opinions are getting the recognition that they merit and Bier's fame is deservedly secure as one of the greatest medical teachers of his time. Not the least merit of his work is its simplicity, and its practical utility in general practice. In this paper

the essentials of Bier's hyperemia treatment are given, and the scientific observations upon which it is based are abstracted.

Bier distinguishes two kinds of hyperemia: active or arterial hyperemia, in which the tissues are flooded with bright arterial blood; and passive or venous (or stasis) hyperemia, in which the tissues are distended because of diminished venous outflow.

He describes three practical methods of producing hyperemia for therapeutic purposes: Active hyperemia is produced by means of air heated to about 300°F., surrounding the parts treated; and also by means of suction, enclosing the part treated in a glass receptacle from which air can be pumped. Passive, venous or stasis hyperemia is produced by means of elastic compression of the veins draining the part treated.

In this paper the suction method of producing active (or arterial) hyperemia in limbs will not be treated of, because the apparatus used is so expensive as to preclude its use in general practice; moreover, as an efficient active (or arterial) hyperemia can be more generally produced by hot-air, the suction method need not be regarded as essential.

Bier in his book, "Hyperemia als Heilmittel," describes the general effects of hyperemia under the various headings: Analgesic, Bactericidal, Absorptive, and Nutritive Effects of Hyperemia. His chapters on these subjects are briefly epitomized here.

### *Analgesic Effects of Hyperemia*

No effect of hyperemia is more striking than the relief of pain. Both active and passive hyperemia have this property. A joint attacked by painful chronic rheuma-

tism becomes less sensitive and occasionally painless after treatment for one hour in the hot-air apparatus. The influence of stasis hyperemia (the technic will be described further on) in the furious pains of the grave forms of gonorrheal rheumatism is even more marked; they subside a half to one hour after the application of the stasis bandage. The various forms of hyperemia remove neuralgias and headaches, and diminish to a considerable extent the sensitiveness of joints which have become painful from various causes.

#### *Bactericidal Effects of Hyperemia*

If we should observe cases of infectious diseases, which not only rapidly improve and heal under treatment with stasis hyperemia, but immediately after the application of the remedy experience a sudden change, we shall hardly be left in doubt that we have to deal with a destruction or at least an attenuation of the causative bacteria. Experimental proof of this effect of stasis hyperemia has been furnished by Nötzel. He succeeded in keeping alive fifty-one out of sixty-seven rabbits in which certain body-parts statically hyperemic were injected with otherwise fatal doses of anthrax bacilli and very virulent streptococci. The sixteen that died had the kind of stasis hyperemia termed "cold stasis," the harmfulness of which will be described later. That stasis hyperemia alone saved the fifty-one animals from death is demonstrated by the fact that a few weeks later they were inoculated with the same bacteria and all died as well as did animals used for the purpose of control.

#### *Absorptive Effect of Hyperemia*

Active hyperemia produced by hot-air is absorptive. It is therefore of use in removing edema and for simple joint effusions. Bier has used it in the treatment of elephantiasis. It is useful also in edema following healed fractures of the extremities. If hot air, however, be applied too long (several hours) it will produce edema. And in this we have an example of the contrary effects produced by different dosage of a physical remedy. In drug therapy we have many such examples. Our modern

knowledge of the fact that the most absorption in the body is done through the capillaries (and not, as formally believed, through the lymphatics) would lead us to expect the absorptive effect of active hyperemia. Klapp demonstrated, experimentally, that active hyperemia had a decided effect on the acceleration of absorption. Stasis hyperemia, during the application of the stasis bandage, diminishes absorption. But as soon as the bandage is removed absorption is greatly increased—so that, on the whole, the final results of stasis hyperemia mean acceleration of absorption—when the stasis bandage is applied for an hour. If longer applied, Bier does not consider absorption to be accelerated and in such cases recommends the addition of massage.

#### *Solvent Effects of Hyperemia*

Besides the absorption of water or substances soluble in water, as edema and effusions, hyperemia is effective in the absorption of solids, such as blood-clots, granulations in joints, and the causative material of stiff joints. These substances must first be dissolved and hyperemia can undoubtedly accomplish this. Under its influence, Bier occasionally observed the disappearance of arthritic granulations and nodules in tendons in a comparatively short time. This solvent action takes place with all forms of hyperemia. The improvement of stiffened joints, which follows the application of either active or passive hyperemia, must first of all be ascribed to the solvent properties of the blood. Certainly a good many other things must be taken into consideration. In all probability, connective-tissue adhesions become softer, more pliable and elastic in consequence of serous saturation and swelling. Bier repeatedly showed that a great portion of the removal of stiffness from a joint is due to the relief of pain by the hyperemia, for otherwise it were not imaginable how a man could move his joint when it is afflicted with chronic rheumatism after an hour's treatment in the hot-air apparatus, or a gonorrheic his severely painful completely ankylosed joint after an hour's application of stasis hyperemia.

Hyperemia, both active and passive, leads to rapid growth of the covering epithelial structure. Thus, in summer, when the skin is supplied with more blood than in winter, hair and nails grow faster. Bier and Helferich found that increased growth of

There is no doubt as to the influence of passive hyperemia on the growth of the bones, both in length and thickness. In proof, Bier quotes several authors. Helferich increased the length of a leg by 2 cm. in a sixteen-year-old girl by stasis hyperemia.

Experiments by Ambroise Paré, Dumreicher, Nicaldoni, Helferich and Thomas prove that the formation of callus in fractured bone is considerably increased by stasis hyperemia.

Bier has repeatedly treated by hot-air ulcers which have not healed under other remedies, and with success. Ullman treated infectious ulcers likewise with success. Hyperemia is the cause of the regeneration of tissue that occurs in these cases.

Having touched upon the effects of the various forms of hyperemia the practical application of this curative agent in disease, will be briefly treated of.

As previously mentioned any remedy, whether physical or chemical, acts differently according to its dosage. A medicine in small dosage may be beneficial, and in larger dosage very harmful. It is likewise with the different forms of hyperemia. Thus, active hyperemia by means of hot-air, when applied for an hour or at most two hours daily, is one of the most effective absorbing agencies for reducing edema. But if hot-air be applied to a portion of the body for seven to ten hours it produces an intense form of edema. Stasis hyperemia (produced by a bandage or a suction-apparatus) in a medium degree, is one of the best pain-relieving agents in different

affections. If an excessive degree be applied, it produces violent pain, and most disagreeable sensations. In using these remedies, therefore, we must be as careful as with medicinal remedies, remembering that reactions differ in individuals—and, by ex-



DR. EDWARD A. TRACY

A Boston surgeon whose work is well known to CLINIC readers

hair may often follow passive hyperemia. Arterial hyperemia has the same effect, manifested by the hairy growth on the hands of surgeons, which because of frequent washings are in a quite continuous state of hyperemia.

perience, learn in what degree and duration, hyperemia is best suited for the individual case treated. By following Bier's technic and observing our cases attentively, it is a simple matter, however, to become quite expert in the application of hyperemia in the treatment of the many diseases in which it has proved curative.

In hyperemia it is the blood that is the curative agent. In every case treated, therefore, it seems to me desirable that we should aim to put the patient's blood into the best possible condition. This should be done by attending to the patient's elimination, digestion, and assimilation. Iron, blood salts, and nuclein are indicated in many cases. Followers of the teachings of Waugh and Abbott, the able editors of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, well know how to get the blood into the best possible condition. Hygienic measures, right living in every sense, must be attended to, especially in constitutional diseases like tuberculosis and the chronic arthritides. This point, the betterment of the blood, by the way, has not been touched upon by Bier, and yet it seems to me of importance, especially, as before mentioned, in chronic cases.

#### *Joint Tuberculosis Treated by Hyperemia*

Bier's treatment of joint tuberculosis is simplicity itself—easily mastered and carried out in practice. I find it an efficient adjuvant to the method used by me for the last ten years: that is, immobilization, protection from weight-bearing, and constitutional treatment. Certainly the results I have had in the treatment of this disease, and which I have reported in *The New York Medical Journal* for Sept. 6, 1906, have been such as to make me thoroughly optimistic in the treatment of joint tuberculosis and indeed I do not see the need of either opsonic treatment or Bier's method, so constant have been these good results. I have used Bier's method in a few cases, and with results that convince me of its value in the treatment of those cases of joint tuberculosis in which it is applicable. In the treatment of tuberculosis of hip-joint, dis-

ease of the sacroiliac joint, and in Pott's disease of the spine it is not applicable—for how can stasis hyperemia be produced in those joints? None the less tuberculosis of these joints is curable, and cases cured by immobilization, protection, and constitutional treatment are given in my paper referred to above.

Bier was led to employ hyperemia in the treatment of joint-tuberculosis by the observations of Farr and Travers, in 1815, and Louis, in 1826, calling attention to the frequency with which pulmonary stenosis was met with in phthisis (pronounced anemia of the lungs which this form of heart disease produces); and, on the other hand, Rokitsky maintained that disease of the heart accompanied by fulness of the blood (hyperemia) in the lungs offers immunity against tuberculosis. Most physicians agree with Rokitsky's idea and admit a relative immunity of "stased" (hyperemic) lungs against tuberculosis.

After experimentation Bier found that stasis hyperemia was curative in joint-tuberculosis. But it must be carefully applied. An elastic band is applied around the affected joint, just tight enough to produce hyperemia without pain. It is applied an hour daily. Longer applications of the bandage he found provocative of abscess formation, and increase of the disease. If the limb, on the application of the stasis-bandage, becomes colder to the feeling than the other limb, the case is not suitable for hyperemia treatment. It is a favorable sign if hot stasis is produced by the bandage, that is if the temperature of the skin becomes elevated and the joint takes on the appearances of an acute inflammation. The treatment should be kept up for several months—so long as improvement takes place. Slight use of the affected joints is permitted, if it be not painful, and active and passive movements are encouraged, avoiding the production of pain. Motion in tuberculous joints I believe contraindicated, for motion in such joints causes a lowering of the opsonic index—a thing to be avoided. For that reason, when using Bier's hyperemia—keep the joint at rest.



Gonorrheal arthritis, especially the severe form that leads to ankylosis, is amenable to stasis hyperemia. In the graver cases of this disease, the stasis bandage must be applied for ten or twelve hours or even longer. The bandage gives relief from pain, and for this reason is worn at night. It had best be applied an hour before retiring so that we can determine that it is efficiently applied. Sometimes, in the graver forms, the bandage is kept applied twenty-two out of the twenty-four hours. The stasis must be vigorous, but not such as to increase the pain. A bandage applied relatively loose produces very intense and hot stasis, but relieves the pain almost instantaneously. Careful passive movements are commenced at once, and as soon as possible, active movements. In the intervals, when the bandage is off, the limb is elevated in order to diminish the old edema, so that a new one can take its place after the reapplication of the bandage.

In acute articular rheumatism, Bier found that pain disappeared quickly after the application of the stasis bandage.

#### *Hot-Air Hyperemia in Chronic Stiff Joints*

The effects of active hyperemia produced by hot-air merit recognition in the treatment of chronic rheumatism and arthritis. Here, especially, the relief of pain and increase of mobility are striking. After a time one can observe reduction of swelling, decrease of existing crepitation, and disappearance of abnormal nodular swellings.

Stasis hyperemia for several hours a day can also be employed with advantage in these cases.

#### *After-Treatment of Fractures*

Bier has demonstrated that hot-air hyperemia is of especial value in the absorption of edema, and gives notes of a case of elephantiasis, that was remarkably improved by its use. In the edema that develops on rising, after bone-fractures have healed, hot-air hyperemia is very effective.

Effusions into joints are generally readily absorbed by hot-air hyperemia; Bier finds it more effective than the ordinary treatment by immobilization and rest in bed.

Bloody effusions into joints can be as successfully treated as watery ones, by this method. The rapid disappearance of pain in these cases is the first and most pronounced sign of improvement. Hot-air should be applied in all cases when vigorous absorption is required, and it should be applied daily for an hour—at most, two hours. In the latter case the affected limb is to be exposed to the remedy morning and evening, an hour at a time.

#### *Neuralgia, Lumbago and Sciatica*

Trigeminal neuralgia, lumbago and sciatica, are all beneficially affected by active hyperemia, by hot-air. Particularly striking is the pain-relieving effect. Eight cases of trigeminal neuralgia were treated by Bier, six of which were of a grave form. Of the eight cases, five were cured by active hyperemia by means of hot-air apparatus. Three cases were not cured and Bier did resection of the nerves in two of them. For varicose veins of the leg Bier advises application of hot air, and a cold douche over the bright-red skin. This method he believes has a gymnastic effect on the vessels, stimulating them to a more normal condition. Ritter has shown the beneficial effect of hot-air application to frost-bite, attributing to it a stimulation of the regeneration of the injured cells.

#### *The Writer's Experience with Hyperemia*

I have employed both active and stasis hyperemia in many cases, and always with good results. Stasis hyperemia I got by using Bier's stasis bandage, made by the Lister Company, Boston. With it good stasis can be safely gotten. The band should be applied tight enough to redden the skin below the point to which it is applied, after a few moments. If pain is caused, it should be loosened. The rule for correct application of the bandage is to produce redness of the skin without pain. If redness be not produced and a cold stasis results, the case is not suitable for stasis-hyperemia treatment—for a cold stasis is found harmful. Such cases are rare. I have produced stasis-hyperemia in many

cases of tubercular joints, infected wounds, and in case of facial erysipelas—always with curative results. In the case of facial erysipelas, I applied elastic constriction around the neck for several hours a day, but at the same time pilocarpine was administered—the case being a sthenic one—in accordance with Waugh's advice. After four days the erysipelas inflammation ceased, and an insomnia and nervous condition developed that was cured with scutellarin and sodium bromide. Of course the bowels were looked after during the sickness.

In the cases of infective wounds treated, evacuation of pus was attended to, echinacea and calcium sulphide were given. I have treated many such cases without hyperemia—and got good results—but since studying Bier's work I add the stasis bandage for several hours a day to the other treatment and believe it adds assurance to a cure. In infective wounds, no precaution can be regarded superfluous to insure cure.

In many cases of joint-tuberculosis I have used stasis hyperemia, together with fixation and protection of the diseased joint, and always with excellent results. I believe fixation is essential in these cases, both from clinical experience with the disease, and also from the scientific fact that motion in a tuberculosis joint lowers the opsonic index, which is the measure of the body's resistance to the disease. All things considered, I believe Bier's hyperemia an admirable contribution to the therapy of joint-tuberculosis, wherever applicable.

In the production of active hyperemia I have used hot-air apparatus of different makes. My preference is for the Universal Portable hot-air machine. This apparatus, as its name implies, can readily be transported to a patient's home, and hot air can be applied to the head, for facial neuralgia; to the back, for lumbago; to the surface

which overlies the great sciatic nerve, for sciatica; besides to the hip, knee, ankle, shoulder, elbow and wrist joints.

Another advantage is, that in hospital or office use, it permits the treatment of two patients at a time, one at each end of the heater. The price is very moderate. At present I have five of these machines in use, renting them to patients for a month or more of treatment. The apparatus can be set up in any place, it carrying its own fuel, wood alcohol or denatured alcohol.

#### *A Few Cases Where Hot-Air Was Used*

I will briefly allude to several cases recently treated by hot-air hyperemia. Two cases of fracture at the ankle joint: The thickening and edema of the tissues were much benefited by hot-air application for an hour every day. I believe bony union is quicker, because of the increased circulation in the injured tissues. In one of these cases the patient was on his feet in two weeks after the accident, hot applications having been made daily after the fifth day. A case of synovitis of the knee joint, with a tenderness localized in one spot suggesting a periostitis, caused by the kick of a horse and seen by me two weeks after the accident, yielded quickly to hot-air application, the man attending to his business. The treatment previous to mine had been nugatory. A severe case of lumbago yielded after several applications of hot air. Several cases of chronic synovitis improved under hot-air applications. Space forbids further details of my personal experiences—and I will close by impressing on my fellow practitioners, that they owe it to themselves and their patients to familiarize themselves with the practical application of the teachings of Bier, a truly great surgeon, who fearlessly teaches a therapy that limits the field of the knife.



## A GERMAN OPERATING THEATER

A description of the new operating theater in the University Women's Clinic at the University of Freiburg, Germany. The method of inducing anesthesia

By WILLIAM L. HOLT, M. D., Heidelberg, Germany

**D**URING a recent visit at Freiburg I had the good fortune to see a laparotomy performed in the new operating theater at the University Women's Clinic. The arrangements were so excellent that I thought a description of them might interest the readers of CLINICAL MEDICINE. The Germans are surely masters of technic in surgery, as in all the sciences.

The most striking things on entering the room were the large windows and the absence of chairs or seats of any kind. Daylight came in unobstructed through a great central window, six feet wide and running to the roof, and also through two narrower windows on each side, which were also some ten feet high and quite unshaded. Not content with this illumination, however, perhaps because the morning was cloudy, the field of operation was especially illuminated by a shaft of light projected from a powerful lamp set in the rear wall, the rays being reflected down perpendicularly by a mirror

overhead. The mirror had a very convenient arrangement for adjusting its position as well as its angle, sliding easily back and forth on rails overhead and controlled by an endless chain which ran down the rear wall within easy reach.

The floor was of very smooth and handsome artificial stone; the walls were wainscoted with dark green smooth tiles and above white. The tables, which were numerous and displayed several very complete sets of instruments, needles, and sutures, were of the customary iron, and were painted white.

The operator and his two assistants wore regular surgical gowns and also had their heads, chins, and mouths all covered with a cap or hood of gauze.

The operation was a myomectomy. Anesthesia was introduced by scopolamine and morphine and continued by chloroform, which was administered through a tube from a balloon.

## PERTINENT FACTS ABOUT APPENDICITIS

Things which the general practitioner should bear in mind about this common disease. Read before the Oklahoma Central and Woods County Medical Societies, Carmen, Oklahoma, October 29, 1907

By A. L. BLESCH, M. D., Guthrie, Oklahoma

Surgeon to the Methodist Episcopal Hospital

**I**T would seem that an apology would be in order for addressing a professional audience such as this upon so old and hackneyed a subject as appendicitis. It is so trite that all of us, from the newly fledged graduate with his professional pin feathers just appearing, to the grizzled veteran of many campaigns whose professional spurs

have been won on many a hard, contested field, in hand-to-hand grapple with the grim and merciless enemy, believe we know all about it.

But to all of you who can reply from bitter experience I ask you in all candor: Is an apology appropriate? Do we know all about it? One glance over your own

limited field of professional activity will assure you to the contrary. There are yet too many deaths from appendicitis in this country and that too a disease in which 2 percent ought to be the uttermost mortality rate. In a death-rate exceeding this some one is to blame. I have placed the mortality higher than I believe in my soul it should be.

It would seem, in theory at least, that we all have a splendid knowledge of the disease. Certainly, the etiology, pathology, clinical course and even the cure, are clear to us; but in a practical way, in the application of our knowledge to the concrete case, there is something missing, for surely no one in this assembly but will agree with me that the death-rate in this disease far exceeds two percent.

It will be the object of this short paper to ignore entirely etiology and pathology and deal alone with the causes of excessive mortality and to discover by a heart-to-heart informal talk with you how to diminish this unnecessarily high death-rate.

This subject naturally divides itself into two general classes: (1) A consideration of what might be considered a normal death-rate in untreated appendicitis and (2) a question of diagnosis.

As a proposition not varying far from the exact truth it may be stated the death-rate of appendicitis, untreated or treated medicinally alone, which amounts to the same thing, is 20 percent. That is to say, 20 percent of all the cases of appendicitis treated medicinally or not treated at all, die either in the first or in subsequent attacks of the disease.

If anyone present should be disposed to question the truth of this statement I would direct him to review something like 10,000 cases so treated, and when the task, which will be no easy one, is finished he will agree with me, I believe, in the statement that 20 percent is a very conservative estimate indeed.

Also it may be added that surgery done at the wrong time or as a forlorn hope brightens up this gloomy picture but little. An early diagnosis is the one key that will unlock this Pandora box of troubles and help us to at least offer the right thing at the right time.



DR. A. L. BLESCH

A man from the new state of Oklahoma, whose reputation as a surgeon transcends even the boundaries of that wonderful commonwealth.

It is indeed strange that any case of appendicitis should go twenty-four hours undiagnosed or erroneously diagnosed in this day, after so much has been faithfully worked out for us by the pathologist and surgeon working together. There are two reasons for it, the first of which is that in some instances—perhaps many instances—the physician is not called during this halcyon time. This can only be overcome by each doctor so educating his clientele that

any pain in the abdomen, of a moderate degree of severity should lead to the consulting of a physician. Please do not forget it may be *anywhere* or *everywhere* in the abdomen, when the patient is kind enough to present himself for examination.

A few days ago the writer operated on a case of this kind in the sixth or seventh day of the fourth attack; in the other three attacks the patient had not consulted a physician at all and the duration of his disease had extended over a period of eight years. This attack was seen by a physician and *not diagnosed positively* for six or seven days from its onset and not until a large retrocecal abscess had formed requiring transperitoneal drainage and a large gangrenous area on the cecum itself, which a few days after operation sloughed and occasioned a large fecal fistula which will necessitate a secondary operation for closure. This man is fortunately recovering; but look for one moment at the dangers he has encountered and will yet face and the stormy convalescence, all of which might and could have been avoided by an early diagnosis followed by prompt operation.

In contrast with this case I will cite the case of my own daughter, aged 16, a strong, healthy girl, who was attacked with nausea, diffuse pain in abdomen, slight *rigidity* of right rectus, *tenderness* perceptible on gentle but deep palpation at McBurney's point, slight *fever*, in forenoon, at 5:00 p. m. A positive diagnosis was made at 9:00 p. m. She was operated by Doctor Horace Reed, at the Methodist Episcopal Hospital, through a one-inch gridiron incision, was sitting up in forty-eight hours and home in one week and practically entirely well in two weeks.

Now, my dear doctor, which one of these two patients would *you* rather be, or would you rather have a member of your family to be?

#### *When the Doctor is Responsible for Delay*

I do not forget that many times a patient refuses operation after a prompt diagnosis is made and operation urged, but I am also not unmindful of the sorrowful fact that too many times the physician is the one who

holds out the, alas! too many times vain hope of interval operation or spontaneous recovery, founding this on a lucky case or two within the narrow limits of his own observation.

What I am now about to say it is *my* desire that you think seriously about. *The only cases of appendicitis that cannot be diagnosed accurately enough for all practical purposes in the first twenty-four hours, are the few which may be complicated or confused with right ureteral colic, pendant diseased gall-bladder, and in the female right tubal disease—all of which, except the ureteral colic, and it may be, are surgical conditions.*

There are four cardinal symptoms of appendicitis, any three of which being present are sufficient to warrant a diagnosis:

1. Pain. This may and indeed is in the first hours usually diffuse—passing with the peristaltic waves over the belly and generally accompanied with nausea and sometimes vomiting.

2. Nausea with or without vomiting. It may require careful examination to elicit it but I can say truthfully that I have rarely found it absent.

3. Tenderness and right rectus rigidity. Very carefully must these be examined for: While distracting the patient's attention by a rapid fire of questions quite foreign to the point being examined, make gentle but persistent pressure with the tips of two or three fingers at McBurney's point. When the appendix and head of cecum is approached the patient will exclaim suddenly or there will be a quick sharp contraction of the right rectus almost throwing the fingers off the sore spot. This may be repeated often enough to satisfy one if sceptical.

4. Fever. This is not high as a rule, but usually ranges low, from 99.1-2 to 101°F. although it may be as high as 104°F. While this may not be present at the time the examination is being made, a carefully kept clinical chart will always show it present at some time during the attack. With any three of these cardinal symptoms present a diagnosis should be made without difficulty.



Aside from those cases, complicated with or confused with renal or ureteral colic or tubal disease or gall-bladder infections, there is something confusing to the average mind in the fact that the pain quite generally, in the beginning, is diffuse or may localize at first, apparently, in the stomach or the left side. This latter symptom has perhaps been responsible for many errors in diagnosis. As pointed out by Chas. H. Mayo, this left-sided appendix pain is invariably associated with a low hanging or very long appendix which hangs over the brim of the pelvis. We have in our work at the Methodist Episcopal Hospital very frequently verified this at operation and do now many times diagnose the location of the appendix alone from this symptom. But do not get the idea that because the pain is located in or referred to the left side that the *tenderness* and *rigidity* will also be in that region.

In one of our cases, however, this was the case. Pain, tenderness, rigidity, and finally tumefaction were all there, yet the patient had had several typical attacks of left-sided appendicitis under the observation of Dr. D. D. McHenry, and, finally, dying from a general septic peritonitis as the culmination of, I believe, the third attack. The writer saw the patient in this attack while the attack of peritonitis was under full headway and refused operation believing it too late. The patient dying soon after, a post-mortem was made by Drs. McHenry and C. E. Lee with the result that a very long appendix was found herniated through a congenital opening in the mesentery and the tip had projected into the left pelvis, finally becoming gangrenous, perforating and sloughing off, with the result I have given above.

The pain radiation is so different in renal colic and appendicitis that they should not often be confused. If the attack is high up in the ureter or kidney itself the pain is usually about this organ, if in lower half of ureter it is radiated downward along ureter to end of urethra and testicles. The attitude the patient assumes is also almost always characteristic for each disease.

An incompletely descended appendix may offer difficulties of differentiation from gall-bladder and ducts, that even the most expert may not be able to overcome, but remember, that in either of these patients the condition is surely surgical and a surgical diagnosis is, in these comparatively rare cases, all-sufficient.

In answering this question the fearful responsibility is going to be brought home to us. In almost every death from appendicitis some one is to blame—sometimes the patient, sometimes his friends, and only too often his medical attendant.

The axiom that THERE IS NO MEDICAL TREATMENT FOR APPENDICITIS should be blazed in letters of living gold across every physician's doorway so that he who runs may read. By that, we do not mean that no patients get well with, or in spite of medical treatment, but that the patient is never cured thereby. As stated above, 80 percent will recover if nothing is done for them; it is the doomed 20 percent for whom we plead.

Only one-half of 1 percent will die if operated upon in the first twelve hours of an attack, 2 percent if operated upon in the first twenty-four hours, one-half of 1 percent if operated upon in the interval.

In my own and Doctor Reed's work I will say that *no* case has died when operated upon within the first twenty-four hours or in the interval. This result is no doubt being duplicated in careful hands everywhere. My reason for calling your attention to it is that you will observe vividly the lesson therein so plainly to be seen.

Upon the general practitioner, out in the field, must we depend for the education of the laity to this important life-saving truth. The doctor must educate each his own *clientele*. If early operation is refused he has discharged his own duty and the responsibility must then rest elsewhere.

As an aid to him in the campaign of education the surgeon should operate with the utmost caution, refusing operation to those *in extremis*, letting the credit for the death go where it most truly belongs—to medicine and not surgery.

## FIFTY-FIVE SURGICAL OPERATIONS

In all these the patients were operated on while under the influence of hyoscine, morphine and cactin, used as the anesthetic. The advantages of this form of anesthesia

By FELIX WILLIAM GARCIA, M. D., St. Louis, Missouri

Professor of Abdominal and Pelvic Surgery in the Hippocratean College of Medicine

**D**URING the last year I have completed fifty-five cases of major surgery, in all of which I have used the H-M-C tablets. This has been sufficient working experience to base conclusions upon. My anesthetists, Drs. Kinner and Hoefler, especially Dr. Kinner, have made careful observations and records in all cases, most of which were done at the Lutheran Hospital of this city. In addition to abdominal sections we had one case of eclampsia gravidorum of eight months and one week. I did an *accouchement force*, with recovery of both mother and child. In this case I used two full-strength tablets; one an hour and the other two hours preceding operation.

We had two cases of diabetes mellitus and several nephritics (albumin 1-2 percent or a little more). Both diabetics were young women and the uranalysis (which *always* precedes operation) put us on guard as I had not known the patients previous to entering hospital. I must confess, I ordered the hypodermic of two full-strength H-M-C's with some trepidation, but both patients suffered no unusual experience. Exactly one ounce of Squibb's chloroform (from record) was administered, for the two. The record states in remarks (nothing unusual) duration of each operation about forty minutes. (Salpingo-oophorectomy.)

### *Advantages of H-M-C*

The advantages of H-M-C tablets I find are the avoidance of shock and fright upon entering the operating-room and the absence of nervous tension of hours preceding operation. This is of great import as one will find by studying patients before operation. Absence of nausea following operation, and the continuance of sleep for a few hours, which prevents pain of wound

before adherence calms severed nerve-ends are also points greatly in favor of this anesthetic.

The uniformity of anesthesia is, to my mind, the best of all effects. Every operator will realize how difficult it is to obtain anesthesia of equal depth throughout entire operation. This tests the skill of the best anesthetist; and I can best secure this by the tablets and chloroform combined. With few exceptions, two full-strength tablets were used, one immediately, and the other one hour, preceding operation, and about one-half ounce of chloroform used in addition, for work of an hour or more.

Properly speaking, the H-M-C tablets are more of an analgesic than anesthetic. The effect is greatly increased by inserting cotton in the ears and placing a towel over the eyes. Light and sound excluded, the patients promptly go to sleep. They are not sensitive to touch so much as to light and sound. The tablets, I believe, render the chloroform more safe, owing to stimulation of both morphine and cactin. In a few cases I tried three full-strength tablets, and all these patients were operated upon without chloroform; but in all these was present some cyanosis which perturbed me. I do not think there exists any reason why three tablets should not be used instead of two whenever desired, without chloroform, except the cyanotic appearance; but here, as everywhere, we find every operator suiting his personal tastes, and I must confess I dislike the cyanosis produced by three tablets. This is not produced by two, usually. Besides, chloroform has a relaxing effect unexcelled by any other agent. For bimanual examination to obtain perfect diagnosis I use one tablet and chloroform, the latter being essential to perfect relaxation.

I believe the H-M-C tablets are a genuine gift to surgery, leaving no excuse for the barbarism and savagery practised in many of our hospitals by surgeons who subject patients to frightfully painful operations with a "little cocaine" hypodermic because "the patient cannot take chloroform on account of her heart," and then remove a

thyroid (as I have seen done) with the patient crying in agony to her God, for an hour by the watch. Such savagery these tablets certainly can stop, and we can make a step forward to the goal that in our hospitals no twinge of pain shall be felt during or after operation, nor degree of temperature shown after operation.

## ... SURGICAL THERAPEUTICS ...

### TREATMENT AFTER OPERATION FOR FISTULA

At the completion of operation for fistula of the anus a hard-rubber tube is introduced well above the cut sphincter and gauze tamponed around it firmly. This permits the escape of gas while the barrier of beginning granulation starts upon the raw surface. That granulation may become fairly well established before irritation by the passing feces is permitted, it is best to keep the bowels from moving for six days if possible, a liquid diet being advised. If the packing is saturated with the wound-discharge before this time, it may be removed and fresh gauze inserted; but as this is very painful it is better to leave the original packing several days even if it does become very foul of odor. When the gauze is removed a high enema of olive oil or an ox-gall enema may be given. Later a saline laxative is to be ordered.

After the bowels have moved the wound should be cleansed by gentle washing, the two raw surfaces being carefully separated, iodoform dusted in freely and a strip of iodoform gauze carried well into the rectum and packed loosely into the cut; with a pad of absorbent cotton over all, supported by a T-bandage. If possible, the dressing should be made twice daily for some days; later once daily; and as the discharge lessens, every second day, though the patient is instructed to clean it as well as possible after each bowel-movement. Should granulation be too slow, dressing with balsam of Peru

daily will soon stimulate the surfaces sufficiently to insure early healing.

The patient should, when circumstances permit, lie in bed two weeks; but most will insist upon being at work in ten days, which does not greatly retard healing if operation has been done properly. Most careful attention must be paid to building up the general health of the patient during convalescence. Temporary loss of sphincteric control need not occasion anxiety.

### IMPACTED CERUMEN

Much suffering from earache, as well as deafness (particularly in the aged) comes from impaction of cerumen in the external auditory canal. This may be readily removed by warming a little dioxide of hydrogen, pouring it into the ear while the patient is lying on a bed or table, and allowing it to remain for about five minutes. Then if the ear be gently syringed with warm solution of bicarbonate of sodium the plug will be easily removed. If not, it will be next day on repetition of the procedure.

### MESENTERIC ABSCESES

When operating for appendical abscess it must be remembered that secondary abscesses may have formed in the lymph-glands of the mesentery. This is one reason in favor of opening the abdomen widely (in pus cases) and packing gauze around the abscess before incising it, it being possible in this way to detect the existence of

other, smaller abscesses connected with or originating from the primary abscess around the appendix or behind the cecum. Abscesses of the mesenteric lymph-glands may also be due to suppurative cholecystitis and rarely to infective troubles of the genito-urinary tract; and they occasionally originate as a complication of typhoid. Treatment is free abdominal section, with careful evacuation and thorough gauze-drainage, omentum being carefully packed around the gauze on all sides, whenever possible, to insure prompt and perfect walling-off of the drain. When the omentum cannot be thus utilized, the adhesion of coils of intestine around the gauze may usually be depended upon. It is best not to remove the gauze until after the fifth day, when adhesions are sufficiently firm not to break down during the act of withdrawal; a simple wick of gauze being carried to the bottom of the cavity occupied by the drain, this to be taken out two or three days later. The bowels should not be moved in these cases until the third or fourth day after operation.

#### TREATMENT AFTER INTESTINAL OBSTRUCTION

It is important that the patient be disturbed as little as possible, yet an enema is a good thing to start the peristaltic wave downward soon after the bowel has been opened, early and thorough evacuation being essential to recovery, for retention of the poison in the intestinal tract is as dangerous as the obstruction which caused the toxic agents to form. Thirst is, therefore, to be quenched by small sips of iced, effervescent solution of citrate of magnesia; but little water ought to be given by mouth during the first 24 hours. Large enemata of warm, slightly salt water may be given with advantage every six hours. Perfect quietude is imperative—anxious friends must be driven out and the patient made to sleep if possible. The first few hours after relief of intestinal obstruction are critical ones, and too great care cannot be exercised to secure perfect tranquility for the patient. No matter how much complaint may be

made of pain, morphine must not be given; it increases the danger of paresis of gut, which is almost always an exceedingly serious menace to life. No food should be given by mouth until more than forty-eight hours have elapsed, but a few nutrient enemata are advisable if the patient be weak or complains of hunger. Liquid diet for the next two days is to be ordered.

#### PAINLESS EXTRACTION OF TEETH

The following solution may be used for deadening the pain of tooth-pulling:

Cocaine hydrochloride.....	0.5
Phenol .....	0.5
Camphor .....	0.5
Chloral .....	0.5
Distilled water.....	85.0

Mix. Rub the camphor and chloral together until liquefied; add phenol, cocaine, and lastly water, and filter. A little of this is to be applied to the gums, on absorbent cotton, for about three minutes; then a few drops injected near the root of the tooth, with hypodermic syringe. In two minutes the tooth may be pulled without much pain.

#### STYES

Staphylococcus infection of a meibomian gland is just the same as any other boil except that it affects the margin of the eyelid instead of a hair-follicle on the surface of the body. When the infection first becomes apparent it is good practice to apply

Yellow oxide of mercury.....	0.5
Lanolin .....	30.0

By using this as an inunction every three or four hours suppuration may sometimes be prevented. As soon as pus forms the little abscess should be opened and the pus carefully evacuated. Then the eyelid (especially at its margin) should be washed frequently with saturated solution of boric acid to prevent infection of adjacent glands and follicles. If the pain be severe a little acetanilid may be prescribed: one-third of a gram (5 grains) three or four times a day, either alone or with half a decigram (gr. 3-4) of codeine. As a rule styes, like boils,

are found in patients with bad general health; so iron, strychnine and arsenic are also indicated, with the use of a small dose

of epsom salt once daily until the "crop" of styes is entirely eradicated. Try this method of treatment.

## GYNECOLOGICAL THERAPEUTICS

### GENITAL PROLAPSE

As a broad rule it may be said that prolapse of uterus, bladder and rectum is dependent primarily upon deficiency in the pelvic floor—the stretching of ligaments and other tissues being secondary thereto. The chief sources of complaint are frequency of micturition, bearing down, irritation of extruded mucous surfaces and neurasthenic symptoms. But, it should be remembered that, in those strongly predisposed to this trouble, prolapsus sometimes does exist in nulliparae in whom the perineum has never been torn, as in rachitic subjects, combined with increased abdominal pressure, from increased weight or effort.

In general, prolapsus is insidious in appearance. As to therapeutic measures for the correction of prolapse, pessaries are to be regarded as only palliative, and massage as not generally useful. Injections of paraffin and of quinine have been proposed, but are of little value. The Alexander operation is of little value. Abdominal hysteropexy does not always give lasting results and may produce complications should labor occur. Shortening of the uterosacral ligaments, to be of value, must be supplemented by perineorrhaphy and shortening of the round ligaments. Abdominal hysterectomy is rarely indicated, though it is an excellent treatment for women past the menopause, if combined with perineorrhaphy. Anterior colporrhaphy is also excellent but must be invariably followed by perineorrhaphy. Amputation of the cervix is unnecessary since its increased length is a result, not a cause of prolapsus. Vaginal hysterectomy is to be used only under particular conditions when there are lesions of the uterus that demanded its removal, such as fibroids; and

must also be done only when associated with a close perineorrhaphy.

### CESAREAN SECTION

Dr. C. F. Gissler, of Brooklyn, N. Y., in *The Medical Council*, November, 1907, says: The very interesting paper by Dr. E. Lanphear, of St. Louis, page 369, in *The American Journal of Surgery* (December, 1906), is worth reading. He recommends cesarean section in placenta prævia, in antepartum eclampsia and in narrow pelvis. He pays great attention to the careful preparation of the vagina. He says firm pressure on the uterine circulation is better than elastic ligature. He rightly advises to clamp instead of tying the cord, in order to save time. A strip of gauze should be left in the cervix for drainage. He uses chromic catgut for the muscle, fine silk for the serosa and a continuous catgut suture over this.

### RECURRENCE OF MAMMARY CANCER

Dennis must have had unusually bad cases of cancer of the breast to deal with (provided he makes as perfect an operation as is done by western surgeons), for after a study of his records he says they demonstrate the clinical fact that (1) cancer of the breast is sometimes permanently cured; (2) that cases may go as long as 18 years and yet have recurrence; (3) that in the cases in which no return was present the operation was performed almost without exception within six months from the incipency of the disease; (4) the more radical the operation within reasonable limits, the better the prognosis; and (5) in some cases in which the outlook was unfavorable, as manifested by extensive ulceration, hem-



orrhage, widespread axillary involvement, however, the end-results have been satisfactory. Palpable axillary involvement, however, according to Greenough, makes the complete removal of the disease more difficult, 12 percent only free from recurrence in such cases, as against 29 percent where no glands were palpable. Dennis reports one case where he removed a sarcoma of one breast, fourteen years afterward

removing a *carcinoma* from the other breast. Vanderveer has reported similar cases. Dennis reports two cases in which the patients had foul hemorrhagic ulcerating breasts, upon whom he operated simply with a view to making the patient more comfortable. To his surprise, one of these patients is still alive, eight years after the operation, the other one four years, and without evidence of recurrence.

## GENITOURINARY THERAPEUTICS

### PHIMOSIS AS A CAUSE OF CONSTIPATION

That phimosis is frequently a cause of disturbances in the genitourinary system is well known. But that it may cause troubles in other organs besides the genitourinary is not so well recognized.

Dr. Witzzenhausen (*Muench. Med. Woch.*) reports a number of cases in which a narrow prepuce was the etiologic factor in the constipation of infants. The constipation was relieved on the performance of circumcision. He explains the causation of constipation by phimosis as follows: As a result of the narrowing of the preputial opening urination is rendered difficult. The bladder is therefore imperfectly emptied and is often overfilled and dilated. The enlarged bladder crowds upon the pelvic organs, presses upon the rectum and as a result we have constipation. The immediate and remote disturbances caused by phimosis if neglected become serious and persistent and may require a long time to subside, even after the initial etiologic factor, i. e., the phimosis, has been removed by circumcision.

### SYPHILITIC AORTIC DISEASE

It seems from the investigation of Bruhns that many children are born with syphilitic disease of the blood-vessels, especially the aorta. He made serial sections of the entire

length of the aortas of nine congenitally syphilitic children. Eight of these were still-born or died shortly after birth, and one had lived to the age of three months. The vessels showed no gross lesions, but pronounced changes were discovered in the microscopical preparations in six of the cases. He concludes that in congenital syphilis areas of inflammation occur, situated in the outer layers of the media and in the adventitia, especially in the neighborhood of the vasorum. These inflammatory foci correspond closely to those described by Chiari in acquired syphilis as productive of mesaortitis. The discovery of these changes in congenital syphilis, therefore, indicates that productive mesaortitis is to be regarded as a manifestation of syphilitic disease in the aorta. The lesson is to institute immediate and active antisiphilitic treatment in every child presumed to be affected with syphilis—or, better, energetic treatment of the mother during the last few months of gestation.

### SYPHILITIC ORCHITIS

Syphilitic orchitis causes a growth of the testicle, sometimes so rapid as to cause suspicion of sarcoma or carcinoma. Unless the diagnosis of malignant disease is quite positive the patient should be subjected to vigorous antisiphilitic treatment for some weeks before removal of the testicle is undertaken.



## GLEANINGS *from* FOREIGN FIELDS

TRANSLATED BY E. MEPSTEIN, M.D.



### WHY AND WHEN I BECAME AN ALKALOMETRIST

The story of "The Gleaner", the oldest, handsomest (see the next page) and best-loved of the entire editorial staff of Clinical Medicine

I AM reminded on this occasion that this month, twelve years ago, I wrote my first article for THE ALKALOIDAL CLINIC, and that I have been favored, providentially, ever since, to write one or more articles for it and its successor THE AMERICAN JOURNAL OF CLINICAL MEDICINE, almost every month. A friend and generous patron during my early struggles, in New York city (where in the early fifties of last century, I was striving to get a medical education in the medical school of the University of that city, graduating from the medical department of the College of Physicians and Surgeons, now the Columbia University), impressed upon my mind the advantage of dispensing my own medicines, even though it be with my pen-knife blade as a powder measurer. And that friend, long since gone to his rest and reward, was a highly educated man. My practice in different parts of the world and on sea in the Austrian Navy, in 1866, during its war with Italy, made me quite familiar with medicaments and self-dispensing.

Early in the nineties of the last century, when practising in West Liberty, W. Va., *The Medical World* of Philadelphia directed my attention to the medicinal alkaloids then sold by The Metric Granule Company, Chicago, Ill. The idea was to me a realization of a long-cherished hope and desire, to have all medicaments reduced to their active

principles, the same as we have them in morphine, quinine, strychnine, atropine, etc. For a while I got that part of the alkaloidal granules which I adopted in my practice from the firm mentioned above. I became more and more satisfied with the greater efficiency of the alkaloids above the plant powders, tinctures, extracts and pills. I do not recollect by what occasion the first and second number of THE ALKALOIDAL CLINIC, of 1894, came to my hands, but it at once riveted my attention to the dosimetric method of using the alkaloidal medicaments. An eclectic physician in a neighboring town also became acquainted and pleased with the alkaloidal granules and comparing notes with him when we came into one another's towns, we conversed about the remarkable efficiency and convenience of those granules. He got his granules from The Abbott Alkaloidal Co., of Chicago, and was highly satisfied with them. I then concluded to subscribe for THE ALKALOIDAL CLINIC, and got with it, *gratis*, that well-known pocket case with 9 vials, each filled with one hundred alkaloidal granules. I selected aconitine, digitalin, hyoscyamine, codeine, stychnine arsenate, glonoin, brucine, morphine sulphate and veratrine.

Soon after using the granules and the effervescent saline laxative, I had occasion to visit Chicago and there I made acquaintance with Drs. Abbott and Waugh. My practice be-

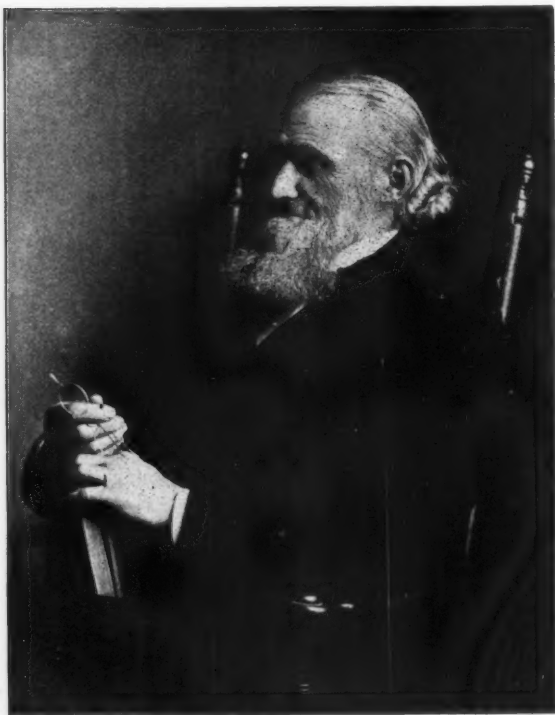
came more and more satisfactory to myself, because more and more so to my patients. Not only was the handling of the medicaments more satisfactory, but more so the certainty and efficiency, through the method of giving small doses, often repeated, till effect. I never was a mere expectant practitioner, and always had a reasonable confidence in medication, but never was I so certain of myself as after I became thor-

we are introduced to our own time-honored and well-proved practice of the ages, with the only happy difference of greater certainty and efficiency. More than ever I felt that I was right in pronouncing the modern disparagement of medicine and medication, in certain strata of society, as nothing less than ignorant vulgarity. More than ever I think and feel to this day that nihilism has no more reason for its existence in medicine in the presence of alkalometry, than it has in the commonwealth in the presence of government by the people and for the people. And do-nothing expectantism in medicine, in the present presence of alkalometric facilities, is to my mind but little short of fraud, pretension and criminality.

With these ideas in my mind I pursued my arduous country practice till the latter part of November, 1898, when I was disabled by a fearful attack of a diabetic storm. I was fortunate enough to have cured, not long before this, a case of chronic diabetes mellitus, but this sudden acute attack of it on myself thundered mockingly at me, "Physician heal thyself!" I was in excruciating pain, but in my right mind and just on that account did not trust my case to myself exclusively, but left it to Dr. J. R. Caldwell, and Dr. J. Schwin, both of Wheeling, W. Va., myself directing that the cor-

responding alkalometric granules be substituted for whatever galenic preparations were agreed upon by them.

The case is fully reported in *THE ALKALOIDAL CLINIC* of 1899, June and July. There are some points in that case and its management which I think instructive enough to recommend their perusal. The recent discoveries of pancreatic affection in connection with diabetes leave no doubt in



DR. E. M. EPSTEIN

Our editorial Nestor—long may he stay with us.

oughly acquainted with the method which the originator of it denominated "dosimetry," and which I redenominated "alkalometry."

There was also an ethical attraction for me in alkalometry, in the way Dr. Abbott inaugurated it in this country. Its own decidedly antisectarian character and his refusal to make of it a medical school, secured my warm affection for it. In alkalometry

my mind that my acute sufferings then were directly due to an inflammation of the pancreas.

Very gradually the pains mitigated, but many months passed before I regained my former strength, so as to resume my country practice. Convalescence was very slow and I lost some thirty pounds in bodily weight. A change of air was thought advisable and on the kind invitation of Dr. Abbott I came to Chicago, where I am ever since in the service of a work in which I am willing to remain so long as earthly life remains in me. It is not in place here for me to speak of my humble share in the promotion of the alkaloidal therapeutic work, but I cannot refrain just here from giving my profound thanks to Dr. W. C. Abbott for enabling me to enjoy that share, whatever it be.

With sincere blessings on him and all his coworkers and the grand cause of alkalometric therapy, I remain as ever,

Fraternally yours,

Ephriam M. Epstein, M. D., A. M.  
Ravenswood, Chicago.

#### HELENIN AND ITS THERAPEUTIC USES

Ever since Germain Seé has demonstrated the great advantage which accrues from the uses of medicaments that are simple, crystallized, of definite composition, whose action when seriously studied and carefully determined proves to be always the same, many new medicaments have been discovered and extolled. A great number of them, it is true, have been in vogue but ephemerally, yet some of them have taken solid root and have preciousely enriched our pharmaceutic arsenal, among which is counted helenin, which occupies an important place because its therapeutic value is incontestable.

Helenin is a solid body, crystallizing in quadrangular, colorless prisms. It was first isolated in 1880, by De Korab, from the camphor or essence of inula campana, popularly known as elecampane, of which it is one of its three principal constituents. It was the object of its discoverer's and other physicians' many researches, clinical as

well as physiological, carried on in France and other countries.

One of the most remarkable properties of helenin is a notable reduction of laryngopharyngeal excitability. (*Soc. de Biol.*, May 13, 1882). Helenin is therefore one of the best medicaments for quieting cough; it will stop the most rebellious cough paroxysm, dry up expectorations the most abundant, and palliate much asthmatic dyspnea. When ingested it exercises a high degree of stimulating action accompanied by a marked diminution of vascular tension and a lowering of temperature, phenomena which were rigorously studied by means of Prof. Marey's apparatus. (*Soc. de Biol.*) From these physiologic properties it was readily deduced that it would be useful in the treatment of pulmonary congestions and to prevent hemoptysis, and these effects have been well demonstrated in clinical experience. Helenin acts remarkably against pulmonary congestions, and its effects are useful also in cases of ulceration and even in cavernous cases when the purulent breath of broken-down tissues (in phthisis) makes us fear the rupture of some blood vessel which has become too thin to resist the pressure of the blood current.

Helenin affords the further advantage of being ingested without irritating the stomach. It stimulates the appetite like the aromatic bitters, and is an aid to digestion in phthisical patients who suffer from obstinate anorexia.

As a powerful microbicide this body has a sterilizing action on Koch's bacillus (*Acad. des Sciences*, Sept. 4, 1882). De Korab proved this as early as 1882, and in 1885 Pillatte verified it and in a Montpellier thesis remarked that a minimum quantity of helenin sufficed to hinder the development of the bacillus.

We must not forget also that helenin is eliminated very rapidly by way of the respiratory passages and it is this fact that explains its topical action on the bronchial mucosa and pulmonary parenchyma (*Congress Internationale de Therapeutique*, 1899).

Summing up the above we would say that the properties of helenin fully justify

the opinion put forth by the distinguished clinician, Vindevogel, in an article of his in the *Confraternite Medica Belge*, where he says that we are to congratulate ourselves on the introduction of helenin in modern therapeutics.—(*Gazette des Hôpitaux*, 1907, p. 1557.)

[The GLEANER wishes to tell the readers that helenin is fully described in our "Text-Book of Alkaloidal Therapeutics." He would be thankful to anyone who may have occasion to use it during this winter to report in THE CLINIC whatever good or ill success he may have with it. "The proof of the pudding is in the eating."]

#### CURE FOR MERCURIAL STOMATITIS

Honest and experienced physicians the world over acknowledge the indispensability of mercury in some diseases, especially in syphilis. But equally true it is that mercurial stomatitis will sometimes occur whether we use mercury in excess or in cautious moderation, after a protracted course or at the start. Then comes the necessity of interrupting the mercurial treatment with usual restrictions of diet and smoking which hinders the success of the treatment and is always irksome to the patient. To obviate all these Dr. P. Meiszner of Berlin recommends very highly the use of formamint not only when the stomatitis had occurred during a mercurial cure, but also to prevent it. Meiszner observed a number of cases of mercurial stomatitis which were treated with formamint and were cured without interruption of the mercurial cure. He is of the opinion that the use of formamint tablets in mercurial cures will most likely prevent the occurrence of stomatitis. He administers, however, only five grams (grains 75) of mercurial ointment a day, or never more than one cubic centimeter of a 2 percent solution of corrosive sublimate twice a week, and though giving formamint he is careful to have any carious teeth of the patient's removed and any sharp points filed off and smoothed. Habitual smokers he does

not prohibit smoking but only directs them to lessen the quantity, and he advises smoking cigars through a holder, so as to prevent any possible cauterization with tobacco juice. The formamint tablets are given in hourly intervals so that ten or eleven a day are taken. Morning and evening, and after every meal, the mouth is washed out with a solution of aluminum acetate, or peroxide of hydrogen.—*Ther. d. Gegenw.*, 1907, No. 7, in *Pharm. Centralhalle*, No. 38, 1907, p. 793.

[The composition of the formamint tablets is given in Peters-Haendel's *Neueste Arzneimittel* as follows: One centigram of formaldehyde, with milk sugar and menthol, with pepsin and hydrochloric acid, and citric acid as a taste corrigent.—GLEANER.]

#### ANAM ULCER

There is a peculiar ulcer common in the tropics (first noted in Anam): a phagedena which begins as an inflammation at a small abrasion of the skin, most often on the leg or foot, soon followed by deep sloughing of the inflamed area—resulting in a sharp-cut ulcer which slowly enlarges, always preceded by the inflammation. It is exceedingly obstinate to treatment.

Fluid extract of lobelia.	32. (oz. 1)
Fluid extract of baptisia..	32. (oz. 1)
Zinc sulphate.....	32. (oz. 1)
Water .....	500. (ozs. 16)

Of this mixture one ounce to the pint of hot water is used in a douche-bag, carefully irrigating once daily. Dress with gauze saturated with a mixture of camphor and phenol, equal parts. Internally iodides or mercury—the trouble is often syphilitic.

#### PERTUSSIN

A valuable cough remedy, consisting of *extractum thymi saccharatum*, which is a fluid extract of German thyme mixed with simple syrup in proportions to equal an infusion of 1:7. An excellent remedy against whooping-cough, given in one to four teaspoonful doses every one to two hours.





## FRENCH NOTES ON ALKALOIDAL TREATMENT

Being some practical suggestions on the treatment of different types of dyspepsia, with some general observations of the dosimetric method of treatment, as it is seen by French thinkers

By THOMAS LINN, M. D., Nice, France

**D**YSPEPSIAS.—As the Americans are a dyspeptic nation, we commence with this subject. Castro said that "it was a difficulty of digestion." No doubt, but it occurs in all sorts of diseases, and some have said that there was no real dyspepsia but only dyspeptics! Bouchard, in France, insists that it is always attached to dilation of the stomach. In any case, those who suffer from it, desire to digest, if they can, without pain, and this symptom is the most important one to the patient.

It is possible, of course, that it may have been caused by too much alcohol, or again by too strongly spiced foods. Then there is the large class of big eaters and drinkers that have it, as well as, curiously enough, the poor fellow who has dyspepsia because he can get almost nothing to eat!

We shall not dwell on the many maladies that are factors in the etiology of the trouble, but hasten to say that the French dosimetric doctors define the condition as "a functional trouble that prevents perfect digestion."

### *Treatment for Buccal and Stomachic Dyspepsias*

The complex digestive function is so varied that, of course, the treatment must be according to symptoms and cause. First of all, we must realize that digestion

commences in the mouth and this buccal dyspepsia may be and often is owing to insufficient mastication or an insufficiency of the salivary-glands secretion. In such cases it is well to give three granules of diastase at each meal, and while it is not a "regular" drug, it has an excellent effect in these cases. To this must be added, two hours after the meals, three granules of nitrate of pilocarpine.

As to the second form of dyspepsia, the stomachal, it is sufficient to mention sulphate of strychnine, three granules before meals, or brucine, according to the case; while elaterin and euonymin, as many as five granules of each, should be given after food; and we add to this massage and often electricity, as well as some hydrotherapeutic methods.

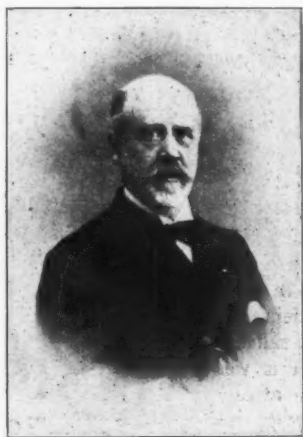
Hyoscyamine has an excellent effect in all cases of vomiting or nausea, and we may give with it a granule of strychnine.

### *The Treatment of Intestinal Dyspepsia*

The third form of dyspepsia, the intestinal, most often comes from an insufficiency of pepsin to digest the proteids, which stay too long in the organs and cause fetid gas. This calls for pepsin as well as for pancreatin, and a few drops of dilute hydrochloric acid after meals. I also use salic-

plate of quinine, and also a few granules of iodoform in these cases. In colic, cocaine and codeine come in nicely and in the acid cases, with heartburn, sodium arsenate and sodium salicylate are given, as well as a largish dose of simple sodium bicarbonate, as much as a teaspoonful in a glass of water *once a day* only an hour after dinner.

When there is great pain and an evident gastralgie form, the cannabine tannate,



DR. THOMAS LINN

An American physician, long a resident of France.

hyoscyamine and codeine, or morphine is needed. When there is no appetite I give quassin and piperine, two granules of each before meals. Of course we always add seidlitz (effervescent magnesium sulphate) daily to get rid of the stagnation of the alimentary residual matters.

In a very serious case of albuminuria that followed an operation for appendicitis, after various treatments were tried, it was found that large doses of strychnine arsenate, iron arsenate and tannin cured the case.

#### *What is Dosimetry?*

Dr. Marty, in a recent article, asks the question: "What is dosimetry?" Burggraeve said: "Diagnosis is a very fine thing, if it is completed by a good treatment." He laid down one, and for years

it was secretly used by many doctors, as they found that it gave them a sure method of treatment as well as remedies that are agreeable to take. Today, after thirty years have elapsed, dosimetry has penetrated into the highest circles of medicine in Europe, and is having an equally great success in America and many other countries.

The great Ghent professor is now getting renown—after his death! Dosimetry or the alkaloidal method is based on the vitalism of Hippocrates himself, what Barthez called "doctrinal." This principle is different from the soul and the organism, and is really a vital fluid or force outside of matter, and is life in it; highest conception, and this is the most rational as well as the oldest theory known.

The next is "experimental," and this is a dynamic force—socalled by Claude Bernard.

The dosimetric method has come to a special conception of disease, that allows it to fix the general rules of therapeutics under the dual condition of diathesis and symptoms; and the treatment follows in all the acute and chronic troubles according to their dynamic origin.

The dosimetric physician considers hyposthenia the first of the dynamo-vital morbid troubles of the living cell, in its protoplasmic, nutritive or eliminating changes, in its contractile movements or its relaxation—which is the principal cause of pain of a spasmodic character. Le Grix says that this is the true point of departure of the dosimetric doctor, as he thinks disease is a modification of this dynamic action, and our therapeutics is an effort to reestablish the physiological equilibrium.

Just as the words, "dose" and "measure," mean to solve the problem of the alteration of the changes in the system, so the dosimetric doctor is to measure out the "dose enough" to bring the system to its normal action, according to the nature of the disease, the constitution of the patient and the active nature of the drug used.

Prof. Grasset, of Montpellier, says that "One can see by the action of drugs that

the vital property of the organism is worked upon, and their action is explained, by just this vital action of the economy."

#### SOME REMINISCENCES OF AN ALKALOIDAL CRANK

Possibly it would be well to give just a few details of the writer's earlier life, leading up to the above sobriquet.

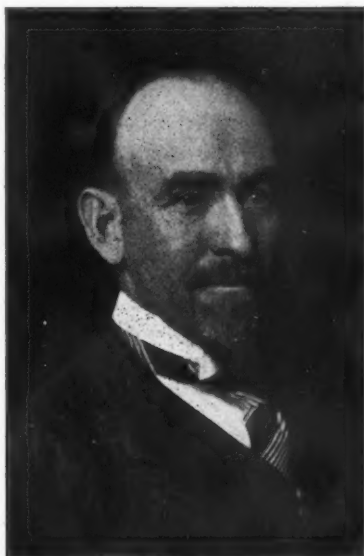
My father, grandfather and grandmother were physicians, so it may be that I inherited some medical instincts. Be that as it may, I migrated from the farm to the old State College of Kentucky in 1889, being impressed with the idea that my vocation was that of physician rather than farmer. For four years I pursued the classical course with the aim of preparing myself to enter a medical school. Finally, 1893 found me in the Kentucky School of Medicine. From there I went to the Louisville Medical, where I took an unofficial course, graduating in June, 1894.

Then came the real earnest work. I entered upon my life's task with a pair of old-fashioned saddle-pockets across my shoulders (the cost of which was \$5.00, borrowed money). These same saddle-pockets when opened filled the room with an aroma very much akin to that of a country drugstore. They contained morphine, calomel, quinine, paregoric, syrup of squill, Dover's powder, ipecac, lobelia, croton oil, chloroform, various pukes and purges, and possibly other things.

With this array I went forth with the light of the moon by night and the gray of the early dawn to treat my patients—and expect them to get well! To cure them, never! So we had been taught, since nearly all diseases were self-limited affairs; and true to the teaching, in the first year of my practice four of my little patients were nailed down by the undertaker, the cause of death being cerebrospinal meningitis. Now, in all fairness to my former teaching, *did* we have any reason to expect this disease to yield, the symptoms to abate, under our old galenical remedies?

About this time, the work of Dr. Burgraeve of Ghent was called to my attention,

introducing dosimetric medication. This active-principle idea of small, measured doses, often repeated, in sharp contradistinction to the old galenical idea of large sledge-hammer doses (regardless of age or condition), four to six hours apart, made a strong appeal to my better judgment. The trouble with galenicals seemed to be that they only met the indications in a very small number of cases. The large, heroic doses of powders, fluids, extracts and tinctures, considered logically, seemed to me to stand



DR. S. D. WETHERBY

One of our many warm Kentucky friends.

at one extreme, while to a nonsectarian, homeopathy, with its infinitesimals, seemed at the other.

Here, then, the alkaloidal method of practice seemed to occupy a happy medium, for "dose enough, and to effect" is our motto. By twelve years of hard, persistent effort, trying to induct my professional brethren into the better way, I have gained the notoriety of being called an "alkaloidal crank."

"What's in a name?" I surely do not adhere to authority and treat a disease by

name, but rather meet the conditions in the case and treat my patients. Every case is a law unto itself. I might begin in an alphabetical way and ask, Is it ever justifiable to perform abortion? Seldom, if ever. I have been prevailed upon by good women in my earlier professional life to help them out of trouble, but later concluded it were better for their troubles to be mostly "little ones." Now, when in the course of events these



DR. WILLIAM AYRES

Of Brierly Hill, Staffs, England. His article "coming" didn't come, but we are glad to show the face of this able English "alkaloidist" and will give you his article later.

little ones have an attack of croup, I give calcidin, gr. 1-3 to gr. 1, every fifteen to thirty minutes. Well, suppose, it is membranous croup, what then? Same treatment; calcium sulphide to saturation; brucine and hyoscyamine if needed. I have had only one fatal case of membranous croup since beginning the use of active principles. This patient I saw in consultation after the other physician had used the old-time remedies for four days and nights. I have always believed the girl would have gotten well but for the "old lady" that's

always on hand. She put this child to sleep with Morley's cough drops, and she never woke.

Diphtheria is another child's disease I sidetrack when possible. Antitoxin given early is possibly better than our active principles. But in the absence of antitoxin I have seen this disease yield to the persistent efforts of the alkaloidist. Calomel, saline laxative, intestinal antiseptics, nuclein, calcium sulphide to saturation, aconitine, digitalin, are the agents employed. No death to date.

November 11, '07, I called to see a child seven years old, suffering from whooping-cough. Pulse 120, temperature 102°F. November 12: Pulse 130, temperature 103.8°F. Prune-juice sputum. Pneumonia and whooping-cough. Treatment: Calomel, podophyllin, saline laxative, calcium sulphide, monobromated camphor, quinine hydroferrocyanide, aconitine, digitalin, strychnine. November 15: Pulse and temperature normal. Patient discharged. I have never yet met defeat from pneumonia occurring in the white race. My mortality to date has been three colored women only. All three died on the seventh day of treatment.

I lost my first patient from typhoid fever November 6, 1903. For this fatal case I prescribed one hundred intestinal antiseptic (W-A) tablets. I was so sure this patient was not taking his medicine (in the face of statements that he was), I counted his tablets after his death and found only thirty-three had been taken, when according to directions he should have taken 180 of them at the lowest calculation. I have never been so unfortunate as to meet with a hemorrhage in typhoid fever, in my personal practice.

In the treatment of rheumatism I have tried to prevent my patients from becoming chronic invalids. Salithia, calcalith, aconitine, digitalin, macrotin, phytolaccin, strychnine and veratrine have served me well. I have one patient today walking about, his knees both a little swollen and stiff. He is doing his work and is on the high way to recovery.

In cholera infantum I have always won the day. Calomel and castor oil to clean out with; saline laxative to keep the intestinal tract clean and neat; zinc, lime and sodium sulphocarbolates for intestinal antiseptis; the withholding of all food as long as needed to accomplish results: and I have seen all my patients so far get well.

From ileocolitis I have seen three children die. And in my opinion all three deaths were brought about by overfeeding. The first was fed green-apple pie. In the second case the mother would not let the baby sleep but persisted in waking it up to feed it. The third had a severe attack of cholera infantum from which it recovered. Then this child was driven about twenty miles through the country in a buggy, when the sun was as hot as blazes. The mother told me she did not feed it—she was not nursing it—so I drew my own conclusion. The great wonder is, therefore, not that so many infants die from bowel trouble, but that so many of them live, in spite of what they are fed.

From my own individual experience I am forced to believe that sometime there will be discovered, either in the vegetable or the mineral kingdom, a remedy for every disease flesh is heir to. It's up to us today, as physicians, to become better diagnosticians. Delve deeper into nature's laws and secrets.

Emerson it was who said the greatest study of man is man himself. Dr. Burggraeve, the father of alkaloidal medication, carried out this idea. Practising his profession until the day before his death, he lay down a wornout man, with no disease apparent.

Dr. Shaller of Cincinnati, in 1895, published a "Guide to Alkaloidal Medication," which contains essays on thirty or more different remedies. Not all the medicines used in dosimetric medication are alkaloids. Among them are found resinoids, glucosides, acids, salts of various chemical combinations, and other substances. I once heard a professor of thirty years' experience ask the question how I could give the strong, dangerous active principle aconitine to an

infant. Shaller's "Guide" is so plain upon this subject "that a fool, though a way-faring man, may not err therein."

What has alkaloidal medication done for the writer? It has lifted him out of the chaos and uncertainty of galenical preparations and placed him in the light of scientific truth. What have I in twelve years of hard work and persistent study dug out of alkaloidal medication? One word will answer: Success. Have I been benefited by this constant devotion to active-principle medication? I am today truly in love with medical science. As a philanthropist I believe in doing all in my power for my fellow man, knowing at the same time that what's hardest to obtain is most readily paid for.

I am tired and disgusted with doctors complaining of hard times and no pay, when these same good fellows are wasting their time running for political offices, working teams upon the public highways, abusing their brother practitioners for getting their patients, and all the while practising medicine as a sideline or secondary consideration.

The study and practice of medicine demand a man's whole time, all of his energies, and then, unless he lies awake nights thinking of some patient seriously ill, he will be found following blind authority. Let's wake up and develop the resources of medical science. The reason our patients run off to the surgeon is because we have nothing to offer them in the way of good treatment. In gallstone colic, for instance, the surgeon says there is nothing to be done but to cut 'em out. I say to you, and most emphatically, give the great antispasmodic triad, glonoin, hyoscyamine and strychnine arsenate, and watch the colic disappear. Give your patient succinate of sodium three times a day persistently for years, and if you are skeptical, ask your patient if he would rather have this treatment or be operated upon. None of mine thus far have been cut, and as a personal proposition, I intend to be as kind to my own gallstones as they have lately been to me. When they bother me too much, I'll have them cut out, not until then; and what's best for me, I consider best for my patients.



I am today the happy possessor of an ALKALOIDAL CLINIC, of the month of April, 1895. The cover contains this statement: "This is a sample copy, we want your subscription." When a man wants a thing and goes after it, he generally succeeds. Dr. Abbott got my subscription to the CLINIC when it contained about fourteen pages of reading matter. He has been from that day to this good hour the American Champion and Exponent of Alkaloidal Medication. No doctor knows how this idea has grown, developed and expanded except the one who has kept in close touch with active-principle therapy.

Dr. Abbott has given to us the greatest antipyretic known to the medical world, namely, amorphous aconitine. He has given us calcidin, a specific in spasmodic and membranous croup. We are indebted to Drs. Abbott and Waugh for the greatest combination of intestinal antiseptics ever used in typhoid fever. He has given us brucine, the weaker alkaloid of nux vomica. He has given us pilocarpine, a specific in sthenic erysipelas. Why use the pilocarpus and run the risk of killing your patient with jaborine, a remedy not indicated? This proves to a thinking doctor that the galenicals, like their teachers, "have been weighed in the balance and found wanting." Another good thing that Dr. Abbott has given the medical profession, is calcium sulphide. The only time I have been disappointed in treating whooping-cough was when I prescribed Abbott's 1-6-grain granule of the above remedy and an unscrupulous Louisville druggist substituted another preparation—just as good (?), and let my patient die.

After practising in the noblest profession on earth for six years it was my misfortune to get sick myself. We all have our ups and downs. Mine was principally down for three long years, flat on my back a goodly part of the time. After receiving treatment from a dozen of my best professional friends all this time, I thought I had about run the gauntlet when I called in the unlucky surgeon, No. 13. He did his best in dilating my sphincter ani, which operation controlled my trouble or held it in abeyance

for some time. Soon, however, my old trouble returned. I passed blood from my bowel from ten to twenty times a day. In all deference to my Kentucky friends, I could never get a clear-cut diagnosis. I was like the woman of Holy Writ, who "suffered many things at the hands of many physicians," and I believe they will tell you today that my nerve was all that kept me up. From a strong, healthy athlete of 147 pounds, I went down to 123 pounds, with two overcoats on. The only diagnosis ever heard in my own case was "consumption of the bowel." I laughed at this, sick as I was. When I asked permission to go to Chicago, I was told I could not go there and back alive. But let me say, I went, and did not stand on the order of going. Once in Chicago, I met the men I had tried to keep up with for years, namely, Drs. Abbott and Waugh and another good brother, Dr. H. C. Bernard, of Charleston, Ill. These men put their heads together, gave me a diagnosis of "congested liver," treated me along active-principle lines, and today I can only say, my gratitude was not an acute symptom, but through the hard knocks of these seven years, I have never forgotten the kindness rendered me, through this misfortune of mine.

It does seem to me we have been drawn closer together and cemented by the ties of professional love. Dr. Abbott, to my mind, has done more for the profession of the United States than any man alive today. He is the ideal business doctor. Dr. Waugh, in my honest and humble opinion, is our greatest living American clinician. Are they infallible? I would say not. "It's human to err," but the greatest error has been committed by unjust criticism. It requires no brains to criticise, but surely it does take a certain amount of discriminating judgment and common sense to find the gold and refuse the dross. Personally, I believe Dr. Abbott to be honest, upright, a man of keen business acumen, far more honest than the average professional man and with more integrity than most men will ever be able to attain. Render therefore unto Cæsar the things that are Cæsar's.

Hasten the day when medical men will open their eyes and use at least common sense in their practice, using as their ethics the Golden Rule, "Do unto others as you would be done by," rather than do every man you can. I believe in standing for what has been tried and proven, and in doing this we can do it in the spirit of kindness, without the fear or favor of any man.

mouth Medical College, class of '84. Practised in Connecticut a few years. Fifteen years ago I returned here as my father was very feeble. He died the following May. Here I have practised medicine and carried on the farm (after a fashion) ever since. Have been a subscriber to the CLINIC since nearly the first issue, and have used Abbott's alkaloids nearly as long.



THE HOME OF A NEW HAMPSHIRE DOCTOR

A pleasant place, such as "our boys" all should have, among the New Hampshire hills.

If error creeps in, it will die a natural death.  
 "Truth crushed to earth must rise again."  
 Boys flying kites haul in their white-winged birds;  
 You can't do that way when you are flying words.  
 Thoughts unexpressed fall back to earth as dead,  
 But God himself can't kill them, when they are  
 said.

S. D. WETHERBY.

Middletown, Ky.

#### A NEW HAMPSHIRE DOCTOR'S HOME

The house pictured was built by my father over fifty years ago. It is made of stone, but the ivy leaves hide it through the summer, so the picture does not show the material. I was born here over forty-seven years ago, graduated from Dart-

I have done nothing brilliant in any line. Am in the class with the man who had "neither lost nor won, nor hardly held his own." Was in Chicago November 1 last year, on my way to California. Arrived too late the night before to get a train west, so had to wait twenty-two hours. Being a stranger and having my family I did not get my bearings so as to visit you, which I should have been pleased to do. Stayed in California all winter. If I ever get another day in Chicago, shall try to find you, and you may rest assured that the latch-string is out to any of you who may stray into New Hampshire.

WM. RICHARDSON.

Londonderry, N. H.

[Next time you come to Chicago don't pass us by. And if we ever visit "old New Hampshire" and come within speaking distance of Londonderry, you can count on a pull at the latch-string. Your home looks "like home." How we would like to see it, and you, as well as lots of others of "our fellows," east, west and south. Remember that *our* latch-string hangs ready for all of you.—ED.]

#### A CASE OF CYSTITIS

A case of purulent cystitis, recently occurring in my practice, illustrates to me so nicely the advantage of the alkaloidal granules, over the tinctures, fluid extracts, decoctions, etc., that I deem it worth reporting.



DR. TORGNY ANDERSON

A middle-aged lady had suffered from cystitis for three months and was getting worse every day on account of her inability to retain the medicines given. This was not the fault of the kind of drugs given but of the form in which they were administered. Buchu, copaiba and uva ursi were given by the attending physicians preced-

ing me. But she vomited up every dose. I was called in because the lady had heard of a cure where I had operated for the same sickness (caused by a large concretion around a hairpin). When I arrived she told me that it was useless to give any medicines, as she would not take them.

After an examination, confirming the diagnosis of the other doctors, I told her that before I could operate I would have to put her bladder in a more aseptic condition. Consequently I ordered the boric-acid injection continued and left three envelopes containing arbutin, gr. 1-6, barosmin, gr. 1-6, and antibleorrhagic No. 2, telling her to take two pills of each kind every two hours with a large cupful of hot water every two hours. I returned in two days and finding her greatly improved ordered the same treatment continued, adding lithium benzoate one grain, two tablets four times a day. The boric acid irrigations were continued also.

One week later I told the lady that no operation would be necessary and that the treatment she was now receiving would be all she would need. And it so proved, for in six weeks the lady was entirely well and rapidly gaining in strength and general health.

TORGNY ANDERSON.

Ceresco, Neb.

#### FADS AND FANCIES

Here are some of them: Faulty metabolism, autointoxication, sepsis, opsonins, ptomaines, ions, bacteria, cell-proliferation, nervous prostration, serotherapy, dosimetric therapy, alkaloidal therapy, bovine, nuclein, antitoxins, electrotherapy, balneotherapy, et cetera, and so on.

1. Faulty metabolism. This, like many other medical terms, sounds big, but does it mean anything tangible? What do you suppose constitutes faulty metabolism? It simply means that the usual functions of the body are not performed in a way to keep the patient well. It means that something, somewhere in the make-up, has gone wrong. It may be caused by anything

imaginable or unimaginable. So you see that when I tell you that you are suffering from faulty metabolism I am so distant from anything tangible that I might as well have told you that you are not well. The average patient (or doctor) understands that faulty metabolism indicates something wrong, somewhere. To tell a patient that he is not well signifies the same thing.

2. "Autointoxication". (Now I am on dangerous ground.) This is a fad on which our good editor has much to say. He can tell you more about it and how to relieve it than any other forty-seven doctors in the country, except those who copy from him. Now, what does autointoxication mean? Simply that the patient is poisoned by faulty metabolism. Is that a definite definition? Yes, but not satisfactory. To the editor it simply means—stomach and bowels loaded with filth which ought to be removed; but the good editor is very silent as to why the stomach and bowels are loaded with filth. He may explain that they are atonic, but why atonic? What caused the atony? Is there not something behind the atony? Behind the faulty metabolism? Eh, what did you say? Say it louder. What caused the atony? Now don't go to guessing. I would say, because the patient eats too much of the wrong kind of food, but faulty metabolism exists in patients who are not eating too much of any kind of food. What about these? I realize that it is much easier to ask questions than to answer them, but there is certainly a cause for autointoxication, and if the cause were removed it would not be necessary to dope the patient with calomel, podophyllin, etc., to be followed by salts, sulphocarbolates and so on.

Now if you can "put us on," do so; but it will spoil your drug trade and this is asking too much of you. It would be a pity to spoil as good a thing as you have in the autointoxication fad. But like all other fads it will sooner or later go to the wall. Purgatives (like the lancet), tartar emetic and heroic doses of opium, are of only temporary use and should be replaced with something less injurious. It requires some wear and

tear on one's system to eliminate alkaloids. They cannot be harmless and yet do what you claim for them, especially in the hands of the inexperienced.

Now, this is a rainy day and I utilize it in again tantalizing you. Take it kindly. If I could do what you are doing I would. So you see I am not condemning you. If you can use this, all right; otherwise throw it away.

W. C. HOWLE.

Charleston, Mo.

[Read with interest as well as amusement. Of course you are right—in spots—and much obliged to you for giving us the opportunity to set this matter before our readers. Back of autointoxication is the question of *why* it exists; atony of the bowels, surely, but why should there be atony?

The reason for this is not always the same in all instances, however; in a good many cases it comes not only from the sort of food which people take, but from neglect of the habitual attention which the bowels absolutely require, the use of foods not sufficiently stimulating to the bowels, and sedentary life; the concentration of the attention on business and other intellectual matters and neglect of exercise; and besides this that tendency, which everyone of us who has passed the middle mile post of life observes in ourselves and in others, to a relaxation of tone in the alimentary canal and a lessening of the sensitiveness of its surface, which induces action. This is a necessary consequence of age, and as yet we have no remedy for age, although Metchnikoff does say that such a remedy exists in sour milk. Possibly he is right, and we ought all of us to begin taking a goodly modicum of sour milk every day of our life, that is, after we have passed the fiftieth year, when youth may be said to cease and middle age to loom in the near distance.

If you will look over the remedy which we recommend you will find that it is not aimed at the autotoxemia so much as its causes. Take the formula which has proved most popular with the profession, that of the "anti-constipation" granule. If you will take this

up and ask yourself the reason for the use of each of the ingredients you will find that it replies precisely to the question you ask. As to the cause of the autointoxication also, it goes further than this, for it applies the remedy.

We look upon the questions that you have asked as exceedingly interesting, so much so, in fact, that we refrain from further consideration of them here, in order to induce our readers to take the matter up and themselves supply what they will quickly see to be lacking in our explanation. We are glad to hear from you again and hope you will come back at us. Good sensible talk along this line is always acceptable to the journal. Your remark about the reply interfering with the commercial interests, I take exactly as it was meant, as a joke.—ED.]

#### AUTOMOBILES: WHO IS THE AUTHORITY?

Will the members of the CLINIC "family" who have had experience with automobiles kindly give me their experience and advice in selecting a machine for use in my practice? I desire advice relative to the Doctor Maxwell two-cylinder, 20 H. P. Runabout, also the Rambler Runabout, the Holsman and the International Auto-Buggy, as representing the high-wheeled class of air-cooled motors.

Is the air-cooling successful and practical for physicians' use and is it to be preferred to water-cooling? I want a machine that has ample power to negotiate our hills and sand as well as mud. I have tried a light runabout with double V-shaped motor on rear axle, but it is not capable of doing my work. Thanking in advance all who are kind enough to write and advise me.

J. H. HUNT.

Glendive, Dawson Co., Mont.

[This is "all Greek to me," and I am afraid even to try to answer Dr. Hunt's questions, for so many of my friends have commenced to dabble a little (around the

edges, as it were) with autos and motors and such things—and *they* were lost! Hopelessly insane! But there are doubtless many readers of CLINICAL MEDICINE who can tell all about air-cooling and water-cooling, two-cylinder and four-cylinder machines—and all the other things of automobile interest. Why can't some of you write up these points for CLINICAL MEDICINE? A whole lot of you will want to be buying automobiles next spring.—ED.]

#### EXAMINATION OF THE SICK CHILD

That some men are born doctors, many are made doctors, and quite a number "die a bornin'" or are spoiled in the making, is an old saying which bears perhaps a degree of truth. The "children's doctor," however, is *born* only—he cannot be made.

The man who has a smile in his eye and a "certain way with him," can do more good by merely holding the baby a minute than the stiff, pompous or nervous clumsy practitioner can accomplish with a day's medication. One man's entrance is hailed by mother and sick child with equal delight; the approach of the other is heralded by the cries of an apprehensive little one and the weary expostulations of its mother. To the right man the little sick arms go out, and whatever "dockey" wants done, is done, even if it does hurt.

The other fellow has to have one or two adults hold the child to enable him to look at its tongue and he shouts his orders to a frenzied woman, the while he mops his face and wonders whether he did really hear rales. When such a man tries to investigate the tonsils or palpate the abdomen the procedures resemble a free-for-all fight. That a really sick child derives benefit from the visits of this doctor is to be doubted. Hence, as mothers have a remarkable faculty for knowing what helps their little ones, the unpleasant doctor, no matter how clever, is likely to find his pediatric practice growing less.

On the other hand, the man who cures the children has the confidence and love of the mothers, and the doctor who treats the



mistress of the house is very apt to take care of its master (and his dependents also) when the need arises.

It is not at all hard to win children, even when sick, but certain qualities and procedures are essential to perfect success.

First of all, *never lie* to a child; be gentle, firm and positive in action; spend a few moments "getting acquainted," and if the child is old enough, try to make his illness and the treatment a subject of interest. For instance, a child burning with fever can be told that he is "the scarlet prince" (or princess) on whom a wicked witch has laid a spell which can only be broken by the doing of certain things by the magician—yourself! The spell makes the tongue white, the skin speckled and the pulse quick, and if it isn't broken, the little "scarlet prince" may be very ill. Of course, any afflicted prince will eagerly aid the magician to defeat the witch, even if he has to take pills and funny stuff in glasses to do it, and will eagerly await the time when the latter can come again to see how his charms are working.

The mother is left to see that the witch doesn't get at the prince and tempt him to do what he shouldn't do, and as she usually comes in her invisible cloak and whispers, "Don't take that nasty medicine," it is very necessary that the magician should have a deputy.

This may appear trivial to the savant or grimly scientific physician, but it means a great deal to the children's doctor and his patients. I know that more than one useful life has been saved by the turning of the illness into an absorbingly interesting combat between the "wicked wizard" and myself—the patient of course being the bone of contention.

If you have to do a painful or disagreeable thing, tell the child (if he asks) that it is painful or what not, but that it is essential to success, and that other boys or girls have been through it and laughed afterward. Offer some reward for good behavior and be sure to give it. Don't promise a child and break your word. Take pains to save pain. A tube of ethyl chloride, a bottle of

chloroform and a little cocaine solution will enable you to do many things without causing suffering. Never tell a child that he will be hurt until it is necessary to do so—apprehension is bad for small people.

Be gentle and never hurry. Never cause the little one more discomfort than you must, and always present the brightest side of things.

If the patient is asleep when you arrive, then is the best time to take the pulse and temperature. Remember that in childhood



DR. GEORGE H. CANDLER

the slightest thing may cause the pulse-rate to leap upward. In pneumonia the rate has been as high as 220 per minute, and the child recovered. In young children it is useless to attempt taking the temperature in the mouth or axilla; the rectum alone is reliable. Use one finger on the radial artery and desist if for any reason the child resists; wait until you have secured his confidence.

It is wise while the parent or nurse is talking to watch the child. The face tells many stories to the trained eye and the actions tell more. A quick respiration—even if there is some temperature—need not lead to the diagnosis of lung-involvement; all sick children breathe quickly and we must look for whistling, sighing, labored or "catchy" breathing before suspecting dis-

order of the respiratory organs. The normal ratio of pulse to respiration in children is 3 or 4 to 1. The sitting or standing child breathes more frequently than the recumbent. If we note a respiratory rate of 40 or 50 to a pulse rate of 120 to 130, then we had better examine the chest thoroughly. During dentition respiration is likely to be markedly increased. It is not till the tenth year that abdominal breathing ceases. Girls are more likely to present costal breathing.

A child who has been frightened may present all the evidences of infection, but after sleeping a few minutes, temperature and pulse will sink to normal. It is worth noting that in children suffering from fever the difference in morning and evening temperature is especially noticeable.

Never give a child a full dose of an antipyretic till you have examined the heart and learned something of its history. Collapse may follow such medication in children with a weak heart or those prematurely born.

Take pains to find out just what the patient has been eating, and ascertain positively his whereabouts for the past day or two; in fact, get all the information you can relative to the case, but unless you have an infant to deal with, do your talking out of earshot.

Always auscult before percussing the chest and try not to use instruments on your first visit. In children the heart-sounds are much louder than in adults and may be heard over the back and abdomen. The apex-beat is outside the nipple-line and the first sound is equally clear at the arterial and venous orifices. From birth till puberty there is no accentuation of the second sound. It is not advisable to auscult while the child is crying, although bronchophony may be revealed when infiltrated areas are deep-seated. All sounds are louder on the right than the left side, and "puerile breathing" is noted after the sixth month. The inspiratory sound alone is heard plainly in small children, the expiratory being almost indistinguishable. Between the scapulæ bronchial breathing is normal; if heard anywhere else it is pathological.

Be sure that rattling of mucus in the nose, etc., is not mistaken for rales. It is well to

have the child sitting erect when percussing. If it is on its back the depressed thoracic walls cause dullness; if on its abdomen the diaphragm and intestines are pushed upward and impede full respiration. The child may lie first on one side and then on the other, and the thorough examination of the lateral walls should not be overlooked.

No experienced man will percuss the heart in a seriously sick child; we can learn all we need to know without endangering the patient. That great changes take place in the area of cardiac dullness between the first and twelfth years should be understood. At one year old dullness (absolute) extends to the third rib along the sternal border and as a rule does not extend to the mammillary line.

At six years absolute dullness begins at the upper border of the fourth rib and the lateral boundaries are displaced one centimeter to the median line. At twelve the dullness and conditions generally are those observable in adults. Anemic murmurs however are rarely heard in childhood. As it is a very difficult thing to ascertain the exact size of the heart in children it is advisable in serious cases to employ the x-ray.

In tedious examinations of the body-cavity give a few drops of chloroform; this is preferable to a struggle. In ordinary examinations of the nose, throat, etc., most children will submit after they have seen someone else "perform." The finger will tell most things you want to know about the rectum and you need not scare the child with a speculum. If you show a child the workings of an auroscope or electrically lighted tongue depressor, etc., as applied to yourself, he will be eager to have it used on himself also.

Make your suggestions regarding medicines and food outside the sick-room, but don't forget to ask the little one what he would like best, promising he shall have it if permissible. If it is not, say nothing. Take some care to make your medicines acceptable and impress upon the child their importance.

GEO. H. CANDLER.

Chicago, Ill.

[This article is "just a taste" of Dr. Candler's splendid new 400-page book on "The Every-Day Diseases of Children," which has just left the presses of The Clinic Publishing Company. It's a "meaty" thing—right straight through, something we don't really see how you *can* get along without, and the price is only \$1.00!—Ed.]

#### TWELVE YEARS OF ALKALOIDAL EXPERIENCE

Twelve years of extensive country practice since becoming a member of the CLINIC family may be fairly compared with more than twelve years of previous work, and each year has but more strongly impressed me with the fundamental truths which have all along underlaid the teachings of practical medicine in THE ALKALOIDAL CLINIC and its successor.

Some eight years ago I thought my cases of pneumonia, treated upon the plans advocated by your editors, were sufficiently numerous to be of value for study and comparison, so the series of one hundred and thirty-four consecutive cases of every form of pneumonia which has come under my treatment were tabulated and submitted to your editor for publication, if he considered them available. These cases had been seen during some four years immediately preceding, and at an altitude of about 7,600 feet. The number of cases did not vary materially from those observed during the same period of time previously and under other treatment, but results seemed eminently satisfactory to me. A note was made in this report that a number of other cases which bore every mark of becoming distinct cases of genuine pneumonia surprised me by not doing so, for which I was disposed to give the treatment some credit. The editor, I believe, called special attention to that remark at the time.

I am now able to report that during the eight years which have followed, my pneumonia cases for some reason have diminished alarmingly, my case records showing only from six to eight per year, and not more than two per year where

treatment was begun within twenty-four hours of the initial chill, so instead of being able to extend my report by a new series of two hundred or more, I can only submit thirty-eight cases in that time, with three deaths, none of these fatal cases having been seen until after the third day of the disease.

As my practice has been practically identical with that of the time covered by



DR. J. TRACY MELVIN

Member of the Colorado State Board of Health

my first report, I am driven to conclude that either we have had eight years of rest from severe pneumococcic invasion, or else that prompt alkaloidal medication has, as a matter of routine, jugulated scores of cases in this community. I can see no other alternative.

Which of the two explanations is the more probable I can perhaps better discuss twelve years hence. Sufficient to say, that in one disease at least, I feel that a perfectly satisfactory treatment has been outlined, at least as regards the type of cases met with in Colorado.

This treatment may be simply and easily epitomized by the three most important

dangers in this disease, and the three classes of remedies advocated for its different stages.

First, period of invasion, danger from excessive disturbance of vasomotor system: remedies, aconitine and veratrine.

Second, period of development; danger from toxins formed; remedies, elimination calomel and saline.

Third, period of crisis and defervescence; danger cardiac failure, from toxins or exhaustion: remedies, strychnine and digitalin.

All to be modified and combined as the needs of each case and each day demands.

J. TRACY MELVIN.

Saguache, Colo.

[It certainly is a strange thing that the "shrinkage" in the number of cases of pneumonia should be confined to Dr. Melvin's part of Colorado, for so far as we have heard there has been no very marked decrease in the number of these cases in other portions of that state—as there has not been in Chicago. Isn't it at least a *possibility* that the method of treatment which Dr. Melvin uses has *something* to do with this strange condition of things. Shouldn't the man who desires to cure his cases at least investigate this possibility, that seems to promise so much.

Dr. Melvin is a careful man, a man who may be trusted, one whose judgment is not stampeded by spasmodic paroxysms of enthusiasm. He is a member of the State Board of Health, not without honor even in his own country! We have a "notion" that when he says something it is worth thinking about.—Ed.]

#### A MEDICAL MISSIONARY IN CHINA

I hardly feel entitled to any space in *CLINICAL MEDICINE*, but in answer to your request for a letter about my work here, I will write a few words. In the sense of statistics it is not a great work, but in another sense it is, for it helps to make the Chinese better friends to the "foreigners," and is instrumental to some extent in extending the Kingdom of God.

When I first came here, five years ago, I could not go on the street or into the country anywhere without being followed by rough crowds and hearing abusive language, but long ago that has changed, and now wherever I go I am greeted kindly by name and title, and treated respectfully, and any other European suspected of being in any way connected with me is afforded the same treatment. And it is all because one foreign woman doctor has lived here these five years, and treated, to the best of her ability, all who came to her in physical or mental distress.

My medical work is mostly confined to the dispensary, excepting an occasional call out, usually to treat attempted suicide, which is very common.

Until a year ago we lived in a Chinese house, very uncomfortable and inconvenient, but this year we have had our own pleasant, comfortable buildings, one for the home and another for the dispensary.

Last year we treated almost 4,000 patients, but I think the number will be perhaps as large again this year. The most common diseases are those of the skin, the eye, and those resulting from malaria. Intestinal parasites are almost universal. A very common and to me most distressing disease is elephantiasis. I have seen so many men and women with their legs—sometimes one, sometimes both—so enormously enlarged that it must be an awful burden to be obliged to walk and work as they must do in order to live. Many of the patients are poor. Medical services are free to all, but all but the very poor must pay for the medicines.

I have been an interested reader of *CLINICAL MEDICINE* for a year and a half. I think it is a splendid journal and read it thoroughly. I have gained much help from it, not the least of which is my admiration for the work of its chief editors, in building up the work they have and helping the world to something better in the line of medical treatment. It always helps us to admire the greatness in others.

I am an ardent homeopath myself and have found it very useful, but I do not be-

lieve there could be no advance made, even in homeopathy. I am sure the "clean-up" theory has taken a pretty firm hold of me, for one thing.

There has been little chance to try the medicines I recently ordered, except calcium sulphide, but that has been a great success in some especial cases. One was a boy of seventeen with a large axillary abscess, which I opened. The next day it was burrowing down into his arm a distance of four inches, and I felt it would certainly be necessary to make another opening, but gave him calcium sulphide, six granules three times a day, and in two days all in-

in diameter and of most irregular shape, then fired from a shotgun.

I thought surely there would be suppuration, but I gave him calcium sulphide for some time and he is almost well, with no inflammation whatever.

My "few words" are already too many, and I will stop with best wishes for the continual success of everything represented by your journal.

ROSA W. PALMBORG.

Lieu-oo, China.

[One of the editors of THE CLINIC has known Dr. Palmborg for many years, and



THE CHINESE OFFICIALS HONOR AN AMERICAN WOMAN DOCTOR WITH A VISIT

flammation had subsided and he was soon well.

Another case was one of a gunshot wound. The charge passed in just above the wrist on the back of the arm, leaving a ragged hole about an inch wide, then obliquely upward between the radius and ulna, breaking some pieces off the latter, and stopped in the fleshy part of the middle of the arm. With cocaine I cut down and removed two jagged pieces of lead and some splinters of bone. The lead was dirty and had been melted down and cut into pieces about three-eighths of an inch

knows the devoted, self-sacrificing work she has done and is doing. She is the only white woman, indeed, the only white person, in an interior Chinese city of 25,000 population. That gives you some conception of the determination, the fearlessness, of the American medical missionary. Now don't feel sorry for Dr. Palmborg! While we know very well that she longs for and appreciates the society of other "good Americans," still she is very busy, absorbed in her work, and has her own family to look after, consisting of a Chinese little one that she has adopted as her "very own,"



and a Chinese grandmother whom she has taken into her home and heart.

The missionaries, and particularly the medical missionaries, are becoming a great factor in the "new China." The Chinese are now alive to the value of western knowledge and the once despised missionary is now recognized as a source of power and a fount of learning. And rarely, indeed,

he not put the theology of his age into his analytical retort and turned his microscope on its claims and conceptions—that "the more a thing is divided the more multiple it becomes." This fact can be proved up to a certain point, when, like every other thing, it disappears behind a veil, beyond which the mere materialist insists that all which is known or assumed to be known, is mere idle speculation.

But I am not intending to stop to argue with this materialist, but simply hold to my own belief in silence, to see what answer I can find to the question that stands at the head of this paper.

Perhaps we might ask for the better definition of a simple or a compound; but then some of us may have discovered that definitions do not always define. Generally speaking, in medical parlance, a simple remedy is the powdered plant or a tincture made from it, and no admixture of any other remedy with it. Such are the "normal" tinctures of The W. S. Merrill Company, or the "specific" tinctures of Lloyd Brothers. And however extensively the eclectics may be given to combining these tinctures, synergistic or otherwise, it has always seemed to me that it was not the inten-

tion or desire of the skilful manufacturers of these remedies that they should be so combined. However, this may be an extraneous question.

I cannot see that all the arguments ever advanced, pro or con, as to whether the whole plant, or one of its active principles isolated, is preferable in the treatment of disease, ever convinced anyone. Nor can I see what the huge doses of the crude alkaloidists of sixty years ago, have to do with the present day. Sixty years ago I was a boy of ten, but the old eclectic doctor, who was our family physician, used to bring me the medical literature of those days in which the allopaths painted the budding homeopaths a few shades darker than Satan, and



DR. PALMBORG AND HER "FAMILY"

has any confidence placed in these devoted men and women been misplaced. What they have done for China is beyond estimate. What they may do is only measured by their own human limitations and the support they receive from those of us at home.

Dr. Palmborg's address is West Gate, Shanghai, from which point her mail will be forwarded.—Ed.]

#### ARE ALKALOIDS AND CONCENTRATIONS SIMPLES OR COMPOUNDS?

It is asserted by a wise one of the eighteenth century—who might have been one of the authorities in science of this day had

the Thomsonians—well, it took a compound of lampblack and bitumen to bring out their details. The old doctor was one of the first to adopt the new fad of active principles, but I think he modified his views to some extent later on. Still the blunders of those practitioners were leading on to something. Their misuse of the powerful alkaloids does not affect my confidence in their superior usefulness and managability, any more than the tremendous doses of calomel of our fathers frightens me from the use of the 1-6 grain granule. (After all I question if a man or thing is really anything until he or it is dead, buried and resurrected.)

The only argument that convinces me is the argument of my own experience. I am willing to take the suggestions of the experiences of other men (but only *as suggestions*) and try to see the reasonableness of them, although when a doctor goes on to the witness stand, posing as an expert, and says that he never used aconitine and never knew any doctor who ever did use it, I find limits to my patience. If he never used it himself, and never heard of a doctor who did, I am wondering how he knows enough about the alkaloid to testify as an expert in a murder case. Will Dr. John Uri Lloyd kindly lend the "expert" a copy of "Stringtown on the Pike?" Well, I promise not to wander any more.

I am questioning whether the fact that certain plants hold various active principles within themselves, proves that when we select a plant for therapeutic use, we have got to maintain that balance. What balance? How much atropine is there in a pound of belladonna root? I know that many chemists claim to have a certain definite amount in every ounce of tincture they make. Doubtless *some* of them do. There are *some* men whose word is beyond doubt. But if I wish to administer 1-500 grain of atropine or aconitine, I really cannot see why I should drown it in a dram of alcohol. I prefer to open my satchel and take out a granule of Abbott's No. 9 or No. 32. For two reasons: I fancy I get quicker results from it, and I don't get the smell on my fingers that a tincture deposits. Mind, I

don't intend to ignore the fluid preparations. I have a fair stock of Lloyd's and Merrill's on hand, and should have more were it not for the fact that I have to buy enough of some of them to last me to the end, even if I doubled the seventy years I have reached. That furnishes two reasons which lead me to prefer the active-principle form, and I hope it does not render me a blind, bigoted devotee to a fad.

But to return to the statement quoted at the beginning of this paper, "The more a thing is divided the more multiple it becomes." What is it in a remedy, whether a galenic tincture or an alkaloid, that sets up an action, starts an energy, that cures a disease, or kills a patient if ill-chosen or carelessly used? I claim that it is an inherent antagonism existent in the remedy itself. The antipathies of things show no one source. There seem, even to broad and deep reason, at least two principles in everything that war with each other. There may be—aye, *are*—more, for as we divide things this antipathy appears in each fragment. The particles—atoms if you please—arrange themselves according to some weird law of polarity. I do not propose to enter into the esoteric of this fact, for Dr. Abbott will immediately put the lid on me. But if this idea, that each fragment of a broken substance rearranges its atoms, or they arrange themselves according to some mysterious (if we choose to consider it so) law of affinitive attraction, how can an alkaloid be termed an "isolated" thing. Aye, I am willing to carry this question further and ask if any one can really tell if the alkaloids do not contain, to a certain extent—perhaps infinitesimal extent—some of every ingredient of the original substance? Marked effects have been obtained by tinctures of such attenuation that the most searching analysis failed to find a trace of the drug.

It is too late in the world's history to deny this fact. You may call this hypnotic suggestion, but eliminate the suggestive element from therapeutics, and there is little of value left. I recall an experience of several years ago, a case of uncontrollable vomiting of pregnancy. I asked the advice of a friend

who was a homeopathic physician. He said, "Give her sepiä." I got some of Clapp & Sons 3x potency, but got little or no effect, and I reported the failure to my friend. He said, "Try hourly doses of the 200th potency and stop as soon as you get the effect." I followed his advice and gave only five doses when the vomiting stopped and never reappeared. The fact was patent, but I never attempted to explain it. Now every one knows that large doses of colocyntn will cause griping and inflammation



DR. JAS. M. PHELPS

of the intestines, but I have cured some savage attacks by dissolving just one pellet of Abbott's No. 76 in eight teaspoonfuls of water, giving a teaspoonful every fifteen minutes until relief, and then less frequently. Can anyone explain this reverse action of colocyntn? To deny it, and set a man down as a victim of hallucinations, does not disprove it.

Well, it is some over ten years since an article by the late Dr. Coleman of Texas interested me so that I began to investigate alkalometry, and from beginning with a vest pocket case of six half-dram bottles, I have come to carry one case of 39 vials in my satchel,

and two of 9-vials each, that I conceal about my person. I have never yet regretted my introduction to the system and if I have committed a sin in depending largely on alkaloids, I have not yet repented. In fact I am a long way from that recantation at present.

I thought to have stopped here, but the suggestion that fragments of the whole plant may exist in the alkaloids pursues me. The constituent atoms of a remedy are so intimately interlocked that it may not be impossible that some part of every constituent may remain with the alkaloid that we attempt to isolate. I do not make this as a dogmatic statement, nor will dogmatic denial disprove or weaken its reasonable possibility. For it is the belief of more than one deep thinker, alkaloidist, allopath, galenist, eclectic, whoever he may be, that science has as yet only been picking up shells and fragments that have been washed up on the beach that bounds the great sea of knowledge. The science of today may be a very antiquated system fifty years from now. The researches of such men as Hahnemann and Lloyd have put a different aspect on medical and chemical affairs within the past fifty years. To doubt that the next fifty years will bring changes as great, or greater, is to question the ability of the Creator to raise up His witnesses according to the world's needs, a question which finds no room in the mind of

JAS. R. PHELPS.

Dorchester, Mass.

[As a "P. S." to this interesting letter Dr. Phelps added a Hebrew motto, with the note, "Ask Father Epstein to elucidate." Not only have we asked "Father Epstein" to elucidate, but to write a comment on Dr. Phelps entire paper—and here it is:

\* \*

Dr. Phelps is a mystic and is not backward to let one know he is one. At the same time he is practical enough to make use in his practice of whatever he has tried and found best in relieving unhealthy conditions and "obviating the tendency to death." As a mystic he is a thinking phy-

sician and the very antipode of that class of drug-dispensing "docs" whose stock of knowledge consists in "this is good for that and that is good for this," as they have it on the labels of their medicaments plainly printed for them. And as a thinking physician he logically enough became an alkalometrist and stays one. Dr. Phelps chose a motto from Psalms 39:3 and gave the Hebrew original for the Common Version: "While I was musing the fire burned, (then) spake I with my mouth."

בהגיא תבצר איש: דברתי בקטוני:

Father Epstein, who Dr. Phelps says will elucidate the Hebrew, is also a mystic and therefore not only a thinking physician and ergo an alkalometrist, but also as a thinking Bible reader takes the liberty of an original Hebraist and translates more reasonably that fraction of verse three (Hebrew Psalter, verse four) thus: "While I meditated the fire of my speech burned in my tongue." This I think is in better accord with this entire Psalm, which is a protest against the atheistic fatalism by which the materialist attempts to settle all the intricate problems of human life.—"FATHER EPSTEIN."]

#### A "POSY" OF ALKALOIDAL VERSE

The "limericks" contributed by one of our readers a month or two ago seem to have been seed scattered on good ground, for successive crops have been springing up ever since. These have been promptly turned over to our "poetaster," who has tasted, made up a wry face now and then, but on the whole pronounced them "good." The editor, being only a cursory patron of the esthetic arts, does not feel entirely qualified to pass upon these productions, though from a hasty examination of the products it seems to him that some of them seem rather to stand in need of the attentions of a chiroprapist.

However, it's good stuff! We know it— for didn't our own boys write the whole batch? Furthermore, since these have gone

into type more poetry has arrived—and still there is room. Come on!

#### ALKALOIDAL LIMERICKS

A woman with a constipated smell  
Got frightened—'cause her waist began to swell;]  
But a dose of the saline  
Took the swell and smell out fine;  
So she bought a dozen cans—to keep well.

Uncle Billy got the jim-jams drinking ale;  
He saw snakes enough to turn a nigger pale.  
Doctor gave him cicutine—  
Ought 'o made it Paris green,  
For he's full again; and ought to be in jail

A palpitating heart was beating fast;  
Every breath was thought to be the last;  
But a doctor "up to snuff"  
Gave of alkaloids "enough,"  
And the danger line was very quickly passed.

Aconitine and Fever had a bout;  
Mr. Fever said: "I surely can win out."  
Then Aconitine got busy—  
Said poor Fever, looking dizzy:  
"You're the 'knock-out drops,' without a doubt!"

Deacon Jones had a bad congestive chill;  
Called the doctor, feeling mighty ill.  
But a dose of atropine  
Soon reduced the swollen spleen—  
And the deacon—never paid the doctor's bill.

Doctor's baby ate a little pork and beans.  
Woke her daddy—awful colic—fearful screams.  
But the anodyne of Waugh,  
When administered by "paw,"  
Lulled the kid to slumber—and sweet dreams!

Sammy Smith with croup one night was taken sick;  
Folks were frightened, but the doctor, coming quick,  
Gave some iodized lime;  
Cured up Sammy in no time.  
"It's the stuff," he said, "that *always* 'does the trick.'"

J. M. SHALLER.

Denver, Colo.

#### MORE ALKALOIDAL LIMERICKS

A larynx, all stuffed up with croup,  
Caused Johnny to gasp and to whoop,  
But with calcidin,  
The doctor did win,  
And saved him from "flying the coop."

Mrs. Smith came to me with a quiz:  
"Could I help her old man's rheumatiz?"  
Calcalith and salith  
Did the trick for Pa Smith,  
And now he is walking to biz.

Young woman: first labor was dry:  
"O Doctor, I'm sure I shall die!"  
I gave H-M-C!  
No more worried was she,  
And soon followed her baby's first cry.

An appendix vermiformis once said:  
 "I can't seem to get through my head  
 Why seedlets of grape,  
 Finding *my* mouth agape,  
 Cause my owner to take to his bed.

"Or why, when I am inflamed,  
 I'm not soothed as those otherwise named,  
 Do these rush operations  
 Increase reputations  
 Of surgeons already so famed?"

WM. E. PHILLIPS.

Springfield, Mass.

### "THE SKEETER"

The damned Stegoma Skeeter  
 Rams his bill into your seat, or  
 Any other place that offers half a chance to do you;  
 Then he'll see-saw, and he'll teeter  
 In a diabolic meter,  
 While he squirts plasmodial legions in a hellish  
 hail-storm through you!

W. C. COOPER.

Cleves, Ohio.

### LITHOGRAPHS

"Books in the running brooks, sermons in stones,  
 and good in everything."

On sterile rock some flower grows,  
 And from it strength and fragrance draws.  
 From barren sources knowledge flows,  
 To him who seeks her wondrous laws.

I asked the Phoenix, foolish bird,  
 Forever roasting in the fire,  
 "Why will you be so blamed absurd?  
 Why not fly up, and then fly—higher?"

He answered, "I'm an emblem bright,  
 A pyromaniac, you see,  
 I'm on the job both day and night,  
 It's the actual cautery for me."

A statue I interrogated;  
 Sans arms, she stood, quite shy, pathetic,  
 "Pray, when your limbs they amputated,  
 Did they use Abbott's anesthetic?"

A stony stare, the marble heart,  
 She gave me, it was disconcerting.  
 "Young man," said she, "you know not art,  
 G'wan now, and don't be flirting."

I quizzed the Sphinx, "I'll bite, now answer,  
 Tell me the riddle you've kept so long.  
 Were vocal cords destroyed by cancer?  
 Or were they simply strained by song?"

She cleared her throat, prepared to speak,  
 While gazing calmly out to sea,  
 Her stony lips in whisper weak,  
 Replied, "I pass; you can search me!"

The noble Laocoon I sought,  
 By horrid serpents sorely vexed.  
 Said I, "The gold cure can be bought;  
 Brace up and try it, man! Get next!"

He gave the snakes an extra pinch,  
 And paused just long enough to say:  
 "I've tried it, and it ain't no cinch;  
 Go on now, it's my busy day."

"My character I must maintain,  
 Of reputation I've no lack,  
 To cultured minds it must be plain,  
 I'm the boss dipsomaniac."

And so, and thus, it is made plain,  
 To thoughtful minds, and those prepared,  
 Sermons from stones one may oft gain,  
 Just as the poet has declared.  
 (Apologies to anyone from whom anything has  
 been cribbed.)

A. H. S.

—, New York.

### COLDS, "FIDGETS," COLIC AND OTHER THINGS

In a former contribution to your journal  
 I mentioned as a fact that since using alka-  
 loids, glucosides, etc., I approached my  
 acute cases especially with a confidence born  
 of success.

Cleaning out, cleaning up and keeping  
 clean the alimentary canal is the essential  
 proceeding, and without it one must not ex-  
 pect remedies to act in a thoroughly satis-  
 factory manner.

The proper use of alkaloids, etc., con-  
 templates a knowledge of the physiological action  
 of each, together with its proper application  
 to the pathological conditions present in the  
 individual case. It is not infrequently a  
 difficult matter so to adjust their uses as to  
 administer just enough. To this end the  
 physician must know the individual as well  
 as the case.

This is the season productive of "colds"  
 in the various parts of the body. The con-  
 dition is that of a disturbance in the equi-  
 librium of the circulation, some internal organ  
 or tissue becoming the seat of congestion.  
 In a great majority of these cases jugulation  
 may be successfully practised, provided  
 treatment be instituted early.

If the cases be not completely jugulated  
 they may, in a majority of instances, be  
 brought to a more successful termination by  
 the use of alkaloids than if glucosides are  
 used. Aconitine, dosimetric trinity and  
 defervescent compound meet the indications  
 for jugulation by restoring the equilibrium



of the circulation; cleaning the alimentary canal with calomel and podophyllin, followed by a saline laxative, enables these restorers to do their best work. These three defer- vescents are at times ably assisted in their action by digitalin, bryonin, glonoin, hyos- cyamine, gelseminine, colchicine, emetine, apomorphine, atropine, and so on, later "taking up the slack" with strychnine arse- nate, brucine, nuclein, etc., at the same time decreasing the possibility of autointoxication by the use of the sulphocarbolates.

Here you have a lot of practice "in a nutshell." Providing it be indicated I consider veratrine the very best single eliminant. I pre- fer apomorphine hydrochloride to any other expectorant, this remedy seldom producing nausea, in fact practically never if in proper dosage. Children bear large doses.

Cicutine hydrobromide is *the* remedy for "fidgets" and for ordi- nary nervous excitement. It is both a spinal and cerebral seda- tive, surpassing the bromides, ex- cept in cases of cerebral congestion, and frequently mitigates the pain in cancer.

Waugh's anodyne for infants controls infantile colic and rest- lessness, although cicutine hydro- bromide is of greater value in the troubles of children in which twitch- ing is a prominent symptom.

Calcium sulphide (to satura- tion) and echinacea are the reme- dies for septic conditions. Bap- tisin is often of great service in typhoid conditions. Caulophyllin the rigid os is a great remedy for use by for obstetrician. Copper arsenate in minute doses will give good results in gastrointestinal catarrh of different grades of severity.

Strychnine arsenate and amorphous hyos- cyamine do excellent work in appendicitis after the subsidence of the acute symp- toms. In producing defervescence, sponge- baths, mustard, and hot and cold applica- tions must not be forgotten.

The patient should so far as possible be kept clean internally, externally, and eter- nally. Ventilation should be thorough and quietness reign supreme.

I desire to compliment Dr. Abbott and his capable assistant upon the results of their labors for the past several years.

Nothing but the complete "Abbottiza- tion" of the work has enabled them to



DR. HORACE R. POWELL

bring CLINICAL MEDICINE up to its present high standard.

HORACE R. POWELL.  
Poughkeepsie, N. Y.

#### ALKALOIDAL MEDICATION

In these latter days of rush and carelessness about health, it becomes somewhat a matter of difficulty to gain a hearing with

the average patient early enough to stay the tide or tendency of the body to degenerate. The medical adviser often has not sufficient opportunity for observation of the progress of insidiously developing disease-processes until the patient is literally compelled to surrender long enough to recover the physiological equilibrium, and only when there is left sufficient physical stamina is there hope of fairly complete restoration of that equilibrium.

Happily, dosimetry and alkaloidal medicine have given us simple means in the shape of simple medicines, with energy sufficient to be up to the requirements. The alkaloids permit us to attack disease with precision at the first sign of danger, or to defend the organism with equal precision from the ravages of disease after it has become established, and they accomplish this without annoyance to the patient from nauseous medication.

Why have so many physicians suggested treatment founded upon the idea that abstinence from drugs alone will suffice for the patient's cure, which amounts to the same as a do-nothing practice of the art by which we are to gain a livelihood? It is because the various means of treating the same conditions are so different that the physician scarcely knows whether he will get the desired effect from the use of his remedies and, indeed, whether he may not aggravate the condition he seeks to relieve. The uncertainty of the galenic remedies fosters therapeutic nihilism—no doubt about it.

How could it be different when we consider the fixity of composition of some of the preparations which enter largely into the official *Materia Medica*?

"For if the energy of the plants varies in accordance with the age, the part of the plant used, the locality in which they were grown, the climate in which they were raised, and the time when they were gathered, etc., shall we expect to find in the various pharmaceutical preparations of these plants, extracts, tinctures, etc., that uniformity which is indispensable to the therapeutic ends we hope to attain by their use?"

At times we may, by the employment of such preparations, produce overaction, and at times fail to obtain the required effect, and at the expense of the patient in both instances.

Here abstinence finally becomes excusable. It is better to leave nature free to act in her own way of effecting cure than to hinder by excessive or insufficient medication. If this is not true, Burggraave and his followers have made a great mistake. This evidence has now the possession of a



DR. W. C. BUCKLEY

higher authority—the thousands of physicians who are using the alkaloidal form of medication. Many who are practising this kind of therapy have announced that even as they felt a hesitancy and powerlessness with the old methods and ancient medicines, for really many of them are ancient, so now these men feel fully armed and confident with the alkaloidal granules.

The plan of administering small doses repeated until the desired effect is produced, which alone will fully assure the harmlessness and efficacy of a therapeutic method, is only possible with single and exactly

measured medicines which shall be entirely soluble and therefore quickly absorbed.

W. C. BUCKLEY.

Philadelphia, Pa.

### THE LATE DR. COLEMAN

Any effort to tell the story of the alkaloidal movement in America which failed to mention the part played in it by the late Dr. W. L. Coleman of Texas would be sadly defective. We therefore take pleasure in presenting a picture of the good doctor, taken with his little grandson, one whom we was fond of calling his "alkaloidal baby," since he was brought through all his childish ailments with the little granules.

Dr. Coleman, so his son writes us, was born in Mississippi, in the year 1833. His father was a cotton planter and miller well known all over Leake county, where he resided. His education was received at a private school sustained by his father and an uncle, the teacher being a one-legged veteran of the war of 1812. Later he attended Oakland College in his native state, Southwestern University of Georgetown, Kentucky, and was graduated in medicine from the Medical Department of the State University at Augusta, Georgia.

After practising a while in his native state, Dr. Coleman went to New Orleans to render what assistance he could during the yellow-fever epidemic of 1857. He then moved to Texas, settling at Liberty, marrying Miss Maria Stewart of Galveston, in 1860. He was in the Confederate army for several years, and aided in yellow-fever epidemics in Houston, Texas, in 1867, in Calvert, Texas, in 1867, and in Memphis, Tennessee, in 1878-79, thus acquiring the widespread knowledge of this disease which characterized his writings. His book on "Yellow Fever" was brought out by The Clinic Publishing Company, in 1898. In Memphis he treated hundreds of cases, with a mortality of only 5 percent, although the death-rate was usually from one-fourth to two-thirds.

Dr. Coleman became interested in alkaloidal therapeutics in 1886, and corres-

ponded regularly with Burggraave and other European dosimetrists, contributing also to the foreign journals. When THE ALKALOIDAL CLINIC was started he became one of its most enthusiastic supporters, and older readers will recall with interest the articles which he contributed to its columns.



THE LATE DR. W. L. COLEMAN  
and his "alkaloidal baby"

Dr. Coleman died in 1904, having retired from active practice in the year 1900. He was a strong man, truly one of the bravest of the old guard. We are glad to have this opportunity to render homage to his memory.

### OBSESSION OR THE DOCTOR'S NIGHT OUT

When the gray comes in your whiskers,  
And you haven't any money,  
It's then you'll have an "orful" time,  
To get yourself a honey.

I wanted to be took with my back hair curled and in a peek-a-boo waist, but I went and let my photographer persuade me out of it. He says, says he, "Doctor, if the intentions was to embellish an ornamental front on *The Police Gazette* I wouldn't say a word, but for the quite staid face of a first-class medical publication it would be

too bold, too striking as it were; it would savor of monopolistic tendencies with an Oren O'Neal flavor."

[Look for Dr. Clason's picture next month. Out of consideration for the balance of "the picture gallery" (and because it came in too late) we were obliged to omit it from this issue.—ED.]

Well, there is no use to argue with a man that can talk like that. I gave it up! Now, before you jump on to this with both feet let me tell you something else. I've been "took notice of" to a small extent by the lay press that entitles me to enrollment as a *litterateur*. Now there is nothing so damning to a literary cuss as a respectable reputation. Literature is necessarily immoral. To write it you must be as the environment you endeavor to portray. Wherefore, the past masters of the art resort unflinchingly to any means, no matter how desperate, whenever they find themselves becoming tainted as it were with respectability. Witness that prince of the pen Samuel Marcus Aurelius Clemenstini. What did he do? Did the Lady Godiva act right in the heart of London? I believe he did wear a bath-robe, but what's that? I've been practising with one and it's a positive fact I can so manipulate that bath-robe that I look more indecent in it than I would without it.

Now we'll get back to science and obsessions. Obsessions are brain storms, throwbacks to a previous antesclerosed state as it were. This obsession of mine took the form of an irresistible longing for a regular old-time courting-boys' night out. For weeks I sternly frowned it down because, of course, for a doctor to do anything like that would be just simply awful. But at last (happy thought!) as a literary character it became perfectly feasible. In fact it was exactly the proper caper, the one thing needful. I hesitated no longer.

Here is a list of the necessities to insure a proper technic. A high-wheeled yellow-gearied box-buggy, with a three-quarter seat; a ewe necked, spike-tailed old ringer, one of the white eyed-browed old bay fellows that used to do his mile at the fair grounds in

four and quarter and can do it by moonlight on a straight piece of pike in two thirteen; a girl; sixty-five cents for ice-cream sodas and \$2.00 to keep your "*revival-in-vitro*" properly replenished; three small towns about five miles apart, where you can judiciously expend the above; and a September moon that's going to stay up as long as you are.

It wasn't much trouble to corral the whole *tout ensemble* until I come to the girl. She was somewhat of a sticker. She's what suggested that nugget of verse at the top of this. You see I wanted to preserve the unities. How, when you start out to look up a girl of the proper age, to "match up" with a man with snowflake whiskers and an obsession, take my word for it you're bumping a hard proposition. Don't think for a minute I didn't get one. Aunt Cal went. She's 63, and proud of it, and she hasn't got a gray hair in her head. She made me take the blacksmith and his wife along for chaperons but 'peared like he didn't have no strength of mind. 'Long about 11:45 he "faded"—right in the shank of the evening as you might say; but then he's married and didn't have any obsession—and that's different. It was 3:20 a. m. when I watched Cal carefully tiptoe over the back porch and silently let herself into the lean-to bedroom.

Well-a-day! Old Eclipse and I pensively meandered at a slow walk down three more miles of silent moonlit and old gray pike, and with a sigh of regret I bid good-by to my night out—and my obsession!

"In the starlight and stillness, all dream-shadowed there,

Her beautiful eyes and her beautiful hair.  
And I, where the light hath a ghostlier gleam,  
In halls that are voiceless, alone with a dream—  
A beautiful dream of the dear days of old,  
Of eyes that were morning and tresses of gold."

L. THOMPSON CLASON.

Urbana, O.

#### ACONITINE IN NEPHRITIS

I would like to testify to the efficacy of the aconitine granules for the severe headache in chronic nephritis, with an extremely rapid, full pulse, with vomiting. In one

case, it being night when I was called and no drugstores being open near by, I supplied six granules of aconitine, each grain 1-134. I gave one of these every half hour. The results were very gratifying, so I have used them in several cases since then with like results. The urine showed less albumin and the stomach conditions improved, skin moist.

VAN H. WILCOX.

Minneapolis, Minn.

#### GOITER: ITS MANAGEMENT AND CURE

Since the October and November numbers of your good journal (and it must certainly have a very wide circulation) were issued, inquiries one after another keep appearing and piling up on my writing desk. I did think my second article (November number) would satisfy the progressively hungry doctors all over our wide and prosperous country, but those in Canada and British Columbia seem to have a desire to know more about my technic in the treatment of hemorrhoids and goiter. Many recent inquiries are relative to the entire modus operandi of treating goiter. Thus, I am compelled to depend on THE AMERICAN JOURNAL OF CLINICAL MEDICINE to help me out with my many honest inquirers, or to employ a stenographer.

I have concluded to "try you on," once again. Therefore, a few words on "Goiter: Its Management and Cure." I hope this will meet the demands. Some write me *thuja* is a "new one" to them.

My method of treating goiter is as follows, and is universally successful in non-tuberculous cases: Beginning ten days prior to giving the hypodermic injection, I have the patient take a good hot-water, all-over bath every other day, two and one-half or three hours after breakfast. She is directed to scrub the surface well, using soft water and a strong carbolized soap, and to use soap plentifully, staying in the tub thirty minutes. I have an assistant rub the surface dry with coarse linen towels, using two or three towels to be sure of securing a dry surface. Then I have a healthy,

vigorous assistant massage the surface all over briskly and thus secure a clean, warm, red skin. Put on dry, warm, well-aired underclothing; have the feet and limbs warm and dry. Get the patient out into the fresh air, to take a brisk walk, half a mile or more and back, then go about her ordinary business. The bath and walk should be taken the day the following is administered: 1-6 grain of podophyllin every three hours during the day (every other day), first dose an hour before breakfast, and keep it up until six doses are taken, that and each succeeding every-other day. Should the 1-6 of a grain produce too free catharsis, take it every four hours, or five doses during the day, followed the next morning with a liberal dose of saline laxative (Abbott), repeating the latter in three hours if necessary to move the bowels freely. Keep this up ten days.

The morning after the tenth day have the patient report to your office. Prepare your injection solution after your patient reports, that it may be fresh, and have the syringe sterilized and in perfect working order. The solution consists of Lloyd's specific tincture *thuja* and sterilized water, of each 10 drops. Place it in a short one-ounce vial, suspend the vial containing the solution in hot water (about 110° F.), draw the solution into the syringe, grasp the enlarged gland firmly between thumb and finger, plunge the needle into the center of the gland, withdrawing the needle one-sixteenth of an inch and inject the solution very slowly, withdrawing the needle as you continue the injection until you get all the solution possible into the gland. Hold a finger over the puncture made by the needle a minute or two to prevent escape of the solution, and now your work is completed. Repeat in ten days if the gland enlargement has not entirely disappeared.

After giving the injection, place your patient on calcidin, one grain every two hours during the day for four weeks; first dose each morning before breakfast and continue until bedtime. A dose of saline laxative each morning ten minutes before tak-



ing first dose of calcidin, sufficient to keep the digestive tract open, clean and healthy. Remember the bath every second day, the day you give the podophyllin. You may say, "Why podophyllin?" Well, for the simple reason that it acts better as a toxin eliminator than any other one remedy. Try it and you will not be disappointed; but give the 1-6 grain granule, repeated every three to six hours, and keep it up as long as necessary to do the work.

J. E. CALLAWAY.

Chillicothe, Mo.

[We trust that many readers of CLINICAL MEDICINE will try this method of treatment, and that as many as possible will send in reports of the success they have with it.—ED.]

#### WHAT TO DO FOR STRANGULATED HERNIA

There are several things a physician may do for his patient with strangulated hernia to avoid an operation:

First, his muscular tissue may be relaxed with chloroform.

The heat attending a strangulated hernia may so expand the imprisoned gas within



DR. V. E. LAWRENCE.

the incarcerated bowel as to prevent the efforts at reduction from being successful. Apply ice or drop a little ether upon the parts and by evaporation produce a sufficiently low temperature to cause the air to contract. If this does not succeed plunge the needle of a hypodermic syringe into the bowel, unscrew the syringe and allow the gas to escape through the hollow needle.

In conversation with a physician some time since he told me of a patient to whom he was called in consultation. The scrotum was distended and elongated with an enormous hernia. Two doctors had tried in

vain to reduce it. The patient was in agony. An operation was contemplated.

It occurred to the consultant that if it were possible to draw upon the bowel from the abdominal cavity instead of pushing upon it from without, the hernia might be reduced. An empty tin gallon lard bucket stood in the room. Without a moment's delay the doctor bared the abdomen and moistened the skin with water. Then he ignited a little piece of paper within the bucket and clapped it upon the abdomen. It took hold like an enormous dry cup, which it indeed was. The old man groaned with pain, but soon there was a gurgling of gas from the hernia and in a short time the strangulation was reduced and an operation prevented.

V. E. LAWRENCE.

Ottawa, Kans.

[That's the resourceful American doctor for you! And this suggestion alone may be worth fifty times the cost of the subscription. Don't forget hyoscyamine.—ED.]

#### "RECURRENT BRIGHT'S DISEASE"

On June 3, 1906, I was called by 'phone to go in haste to see a Mr. H., eighteen miles out in the country. "Come quick," said the caller, "he has gone insane." I found a man about 60 years of age, heavy build, nervosanguine temperament. His temperature was 102°F., pulse 65 per minute, respiration 20 per minute. Skin dry, "leathery" and mottled (dirty brownish splotches); semi-stupor, a badly coated tongue and bad breath; urine very scanty and high-colored; abdomen somewhat full and a little sensitive to pressure; the engorged colon could be easily felt; cold feet, hot head, every organ was greatly oppressed; heart, lungs, liver, nervous centers, brain, kidneys, stomach, bowels, skin, circulation, all by the "internal and infernal enemy." What that internal enemy was, all true alkaloidal physicians can tell you at a finger snap.

The history: He had acted strangely that morning, talking incoherently and often

boisterously, refusing all restraint. He finally lay down and was thought to be asleep, and as the ladies only were at home, they left him alone. About two hours after his wife went to his room and he was gone. A search of the premises did not reveal him. About 3 p. m. some of the "men folks" came home, and they started a search for him and found him a mile out on the prairie, lying on the ground unconscious. He was taken to the house, and at this point I was 'phoned for.

The people told me that this was the "worst spell" of several of like nature that he had had during the past three years, and that his family physician and two or three consultants had pronounced it "recurrent Bright's disease," and that he was sure to have a fatal attack almost any time. His family doctor being absent for a few weeks, and I being an entire stranger to them, made them feel greatly alarmed.

After I had exercised him thoroughly, and had made a bedside analysis of a sample of his fresh urine, the family asked me if there was "any chance for him to live until morning?" and, "are not his kidneys entirely ruined?" and "will he ever come to himself?"

I replied: "Mr. H. has no serious kidney disease. He will be rational within twelve hours, and will get well if he and his nurses will do exactly as I direct."

This was a "stunner" to them, for their family physician was high in their confidence, and I had dared to differ from his opinions. But I thoroughly explained the whole matter to them, and it all seemed so reasonable to them that they took up the hopeful end of the argument and aided me fully.

The first thing I did was to order a lot of hot normal-saline solution to be prepared, and while this was being done, I gave him a dose of the following, to be repeated every fifteen minutes for eight doses: Calomel, 1-6 grain, one granule; podophyllin, 1-4 grain, one granule; "heart tonic" one granule, and gastric sedative, one granule. This was to be followed in two hours after the last dose by saline laxative, one tea-

spoonful in a cup of hot water every half-hour until the bowels began to act, which was after the fourth dose. I always take the "saline" with me when I make distant visits.

I next gave him a large colonic injection of the now-ready, normal-saline solution, to be repeated as often as it passed; between the clysters making abdominal massage over the colon. Five injections were given during the night. By 3 a. m. Mr. H. was getting rid of an immense amount of horrible filth.



DR. O. H. WESTLAKE

His kidneys were acting better, his skin getting moist, his heart was "steady" and strong, his breathing was normal and his mind was clearing up fast. In short, the change for the better was so great that the people were puzzled. I then began with the triple sulphocarbolates (intestinal antiseptic), two tablets dissolved in a cup of hot water every two hours for ten doses, then every four hours until the bowel actions were odorless and the tongue clean and the breath normal.

After the bowels were thoroughly emptied, I directed a pint of hot normal saline solution to be thrown well up into the bowels every hour and retained. This, after the fifth injection, brought the kidneys into fine action and also opened up the entire skin. I did not allow him anything to eat, until late that evening, and then gave a glass of rich buttermilk only, every two hours.

(Brother, this is one of the finest diuretics you can give in many cases.) After the eight doses of the first prescription had been given, I gave one "heart-tonic" granule and two dosimetric trinity, No. 1., every hour for six hours, then every two and three hours between times. These "times" were the repeating of the first prescription, after twenty-four hours of rest after the first course, and also after the second course likewise.

At the end of three days we had his system so thoroughly cleansed that he was getting "hugely hungry" as he expressed it. I left him on a thirty-days' course of the triple arsenates and the triple sulphocarbolates, with the "heart tonic" and a good large talk on "how to live," and then dismissed the case.

Mr. H. has been in fine health ever since, leading a very active stockman's life, a longer respite from trouble than he has known for years.

Ye Gods! Brothers, will our brethren ever awaken to the necessity of searching out the fundamental conditions and rationally meeting the indications? It can only be done by the means and methods of alkalimetry.

ORVILLE H. WESTLAKE.

Lubbock, Tex.

#### SCORE ANOTHER FOR INTESTINAL ANTISEPTICS

My young brother has had a bad case of acne vulgaris for some years. I have had him under treatment since June, 1906, and rung the changes on calcium sulphide, aluoin, arsenic sulphide, calomel and saline laxative, with carbenzol and carbenzol soap locally. When I could get him to come to the office I used to lance the pustules and touch up the cavities with phenol followed by alcohol; but the "kid" was pretty busy at college and did not come often enough.

Last summer he was growing discouraged because we did not seem to be getting ahead, so I sent him off to the country with a full supply of calcium sulphide, aluoin and carbenzol soap. But I added calomel,

podophyllin and bilein compound twice a week and the old reliable intestinal antiseptic (W-A), enough to get complete sweetening of the bowel and maintain it all summer. The family vetoed carbenzol, refusing to sacrifice any more pillow-cases



DR. MALCOLM D. MILLER

to its staining properties. Conditions were practically the same the two summers, except for the intestinal antiseptic. This fall the "kid" returned with a clear skin. If it wasn't the "I. A." that did the work, what was it? Before the sulphocarbolates were given, the disease hung on stubbornly and the bowels were a caution for odor. As soon as the sweetening process was duly established the trouble yielded.

This is not an isolated case. I am beginning to believe that it is easier to cure almost anything with than without the sulphocarbolates. One may almost say they are always indicated.

MALCOLM DEAN MILLER.

Boston, Mass.

[And so they are—almost always! Stop the poisoning from the bowel and you will put a stop to half our ailments. Don't believe it? Did you ever *really* practise the "clean-out" and the "keep-clean" ideas? Try these things, good brother scoffer—try 'em *first*, then praise, preach or pooh-pooh, through CLINICAL MEDICINE's columns if you wish. They're open to you.—ED.]

### THE TREATMENT OF COUGHS AND COLDS

The treatment of coughs and colds depends upon the stage of the disease during which it comes under observation; since the ordinary divisions, acute, subacute and chronic, demand radically different treatment.

If seen early, most coughs and colds may be arrested at once by restoring the circulation to its natural balance and reestablishing normal secretions to the involved mucosa. The following treatment at this stage is usually abortive: Fever, a hard pulse (often full and bounding) and a hot dry skin call for *veratrine*, gr. 1-134, every half hour or hour till the patient sweats freely and the pulse softens. Then change to amorphous aconitine, gr. 1-134 every hour or two, to maintain this effect.

If congestive pneumonia with persistent chilliness is present, add one granule of atropine, gr. 1-500 to each dose of amorphous aconitine and continue this combination till the cutaneous capillaries are dilated as shown by the flushing of the face. Atropine antagonizes the primary congestion facilitates the equalization of the circulation and quickly overcomes the tendency to chilliness.

A hot foot bath should be taken with an abundance of hot drinks, the patient being thoroughly wrapped in flannel blankets to induce profuse sweating. The atmosphere of the room should be continuously charged with watery vapor. Moist hot applications to the upper part of the chest and neck, if persisted in for the first twenty-four hours, will often work wonders.

The patient often demands relief from the persistent dry, harsh cough caused by the scantiness of the secretion of the involved mucous membrane. Here the everlasting cough syrup, that, generally if not always, owes its entire efficiency to the presence of some form of opium, is only too often the usual prescription. It quiets the irritation of the inflamed mucosa and gives temporarily relief, but it does not remove the cause. Quick restoration of the normal secretion will remove the cause of irritation and with it any excuse for the exhibition of opium.

*Apomorphine Hydrochloride*, three or four granules, gr. 1-67, every half hour or hour, by the mouth, will probably restore the mucous secretions more quickly than any other single remedy or combination of remedies. It works so rapidly that the patient will be perfectly satisfied with results. Nausea or vomiting is not produced by the dose of apomorphine recommended, provided it is given by the mouth. Astonishingly large doses may be given by the stomach and not cause emesis. Apomorphine, when given in this manner relaxes inflamed, congested mucous membranes, markedly increases their secretions and produces local and general sedation.

The above measures combined with eliminative treatment, such as by calomel and podophyllin, followed by saline laxative, should abort most cases at this early stage.

Let us briefly consider the functional derangement present in the capillary circulation of the affected mucous membrane: There are many causes for coughs and colds, but the mechanical process that produces the local capillary congestion is always the same. The cause, acting through the vasomotor nervous system, results in more or less general or local contraction of the arterioles. This we call vasomotor spasm. The blood must go somewhere, and naturally it gravitates to the weakest point, the capillary circulation of some mucous membrane, and the patient reports that he has "caught cold."

As above described, many of these congestions may be aborted by early treatment.

But if twenty-four to thirty-six hours have been allowed to go by, and with it the acute reaction of the initial stage, somewhat different treatment will be required.

The capillary blood-vessels will have lost most of their power to contract, rendering abortive treatment useless. The acute condition is rapidly becoming subacute.

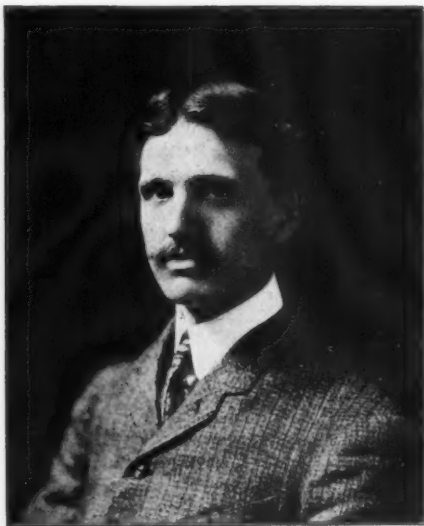
The irritation in the bronchial mucosa causes somewhat varied subjective symptoms. The cough may be dry, harsh, incessant, spasmodic, barking, with a feeling of oppression—inability to breathe freely, etc. An excess of blood and fluids in the bronchial mucosa perverts the secreting

removal of the cause of irritation. We could easily cover up this irritation by using some form of opium, but this does not remove the cause.

We have three sovereign remedies for "dry cough." If the cough is dry, harsh, hacking, persistent, with or without the sensation of soreness beneath the sternum, our greatest remedy is *apomorphine hydrochloride*, gr. 1-67. Three or four granules of this should be given every half hour or hour till cough loosens and irritation subsides, which will require only a few hours. The same condition in children may be treated also by apomorphine. A child six years old may be given one granule every half hour or hour, younger children in proportion (see Shaller's Guide). As a general rule, the writer would recommend *emetine* for children, in place of apomorphine, for the above-described conditions. A very good general rule would be, for weak adults and children use emetine; for strong adults and children, use apomorphine. If the child has capillary bronchitis, *apomorphine combined with strychnine* is much the best of all known remedies.

The dose of emetine for infants is a teaspoonful every half hour or hour, of a solution made by dissolving twelve to eighteen granules, gr. 1-67, in twenty-four teaspoonfuls of water. This dosage will apply for a child of from six months to three or four years. If fever is present, add to this solution one granule of *amorphous aconitine*, gr. 1-134, for every year of the child's age. Older children may take one or two granules of emetine every half hour or hour; cut in half if nausea.

If a dry, hard, barking cough is accompanied by a sensation of oppression, inability to breathe freely, simulating an asthmatic condition, *lobelin* is the remedy of choice, and should be given in doses of two or three granules every half hour, dissolved in hot water. It produces quick relief in all forms of irritation of the respiratory tract accompanied by a sensation of oppression. By relaxing the tissues, it favors expectoration when a large quantity of mucus is secreted and there is want



DR. E. G. PAXTON

He isn't so much of a "kid" as he looks.

functions and the respired air passing over them causes irritation of the terminal nerve endings resulting in the symptoms described above.

How shall we bring about normal secretion and permanently relieve this congestion? First: Deplete the general circulation by cleaning out the alimentary tract with calomel and podophyllin, followed by saline laxative. Second: Stimulate the mucous membrane and its glands to secrete freely, which will result in local depletion and



of power to remove it. Here it combines well with the stimulating expectorant, sanguinarine nitrate. In all catarrhal maladies of the dry type, no other remedy will so quickly produce free mucous secretions.

Another remedy worthy of special mention in this connection is *sanguinarine nitrate*. When a fresh cold affects the nares, pharynx, larynx or trachea, and there is a burning, smarting, itching sensation and an irritable, tickling cough, sanguinarine nitrate in small doses will often relieve promptly, as it acts as a vital incitor to the irritable mucous surfaces, promotes expectoration, and stimulates their functions.

For conditions affecting the smaller bronchi and the capillary tubes, *apomorphine*, *emetine* and *lobelin* are of more value than for similar conditions affecting the larger bronchi, larynx and trachea. Here *sanguinarine nitrate*, *potassium bichromate* and *iodized calcium* are in most instances to be preferred. *Sanguinarine nitrate* is a splendid stimulating expectorant, but should be used only after active inflammation has subsided. It restores the bronchial secretions when scanty and checks them when profuse.

While it is of great value in many other ways, its particular field of usefulness is in bronchitis of the very old and the very young, when the sensibility of the bronchial mucosa is low and the patient does not feel the need of coughing to rid the tract of accumulated secretions. Sanguinarine nitrate will then restore normal sensibility and cause the patient to cough harder till the accumulated secretions are expelled. Otherwise the bronchial tubes would fill up and the patient suffocate. Care must be taken not to exceed the stimulating dose and get the nausea of overdoses.

The dose of sanguinarine nitrate for bronchial affections is gr. 1-67 every hour or two till therapeutic effect or slight nausea.

*Iodized calcium*, mentioned above, has won a very high place in coughs and colds affecting the nares, pharynx, larynx and larger bronchial tubes. It has been used successfully in many cases of capillary bronchitis, where it seems to act as a re-

laxant and resolvent, liquefying the tenacious plugs of mucus, allowing the air free access to the air-cells. But apomorphine is a much better remedy for capillary bronchitis, provided it is given by the mouth, combined with strychnine, and is used early in the disease.

For colds attended by glandular swelling, the value of calcidin is unquestioned. It is also of great value for the bronchitis of bronchopneumonia and for delayed resolution of lobar pneumonia. Infants and small children may take gr. 1-3 to gr. 1 every ten minutes to four hours. The usual adult dose is one or two grains every one to four hours.

*Potassium bichromate*, like sanguinarine nitrate and calcium iodized, acts best upon respiratory troubles affecting the fauces, larynx, trachea, bronchi and smaller bronchioles. An exudate of thick, tenacious sputum, with hoarseness from a cold, accompanied by a hard, dry, irritating cough, are the special guides to its selection. Although it does not matter much what the stage of respiratory irritation may be, provided thick, tenacious sputa is present.

In the third stage of chronic pharyngitis, its exhibition will often prove a happy surprise. It is valuable as a relaxant in croup and in capillary bronchitis. The usual dose is, gr. 1-67, every half hour to two hours, the latter for chronic conditions. For chronic laryngitis three tablets, gr. 1-67, with three granules of strychnine arsenate, gr. 1-134, should be given before each meal. The writer has had some very pleasant experiences with this combination.

Locally applied, as a spray, it has proven of special value for the removal of the thick, tenacious sputa above described. Solution for spray is made by dissolving one or two tablets, gr. 1-67, for each dram of water. Add to this one or two minims of boroglyceride for each dram of solution.

Coughs, at any time in their course, may become spasmodic in their nature. This symptom should not be treated with opium derivatives, but with some harmless antispasmodic. We have three much neglected remedies that meet this indication admirably. (1) *Hydrocyanic acid* has long

been valued as a remedy for spasmodic coughs, but is now seldom used because of its extreme unreliability. *Zinc cyanide* is a stable reliable salt of this acid. It should be given in doses of gr. 1-6 every hour till relief, then every two to four hours as needed. (2) *Zinc valerianate* acts in a similar manner to zinc cyanide but is of particular value when the spasmodic cough is associated with fever. The dose is one or two granules, gr. 1-6, every half hour or hour until effect. (3) *Aspidospermine* is an excellent general antispasmodic in all respiratory troubles. For spasmodic cough accompanied by dyspnea, it is our best remedy. Two or three granules, gr. 1-67, should be given every half hour or hour until effect, then as needed.

The objection to most cough syrups and tablets containing morphine or other opium derivatives, is that the dose present is entirely too large, while the doses of the corrective remedies combined with it, are too small. Such combinations given at long intervals, every three or four hours, are of little value as curative measures, and principally serve to satisfy the patient's mind and relieve symptoms temporarily. Very small doses of morphine, heroine or codeine are useful, if given at frequent intervals to desired effect. They should usually be given in combination with such correctives as emetine, apomorphine, pilocarpine, tartar emetic, or potassium bichromate. These remedies powerfully stimulate all mucous-secreting organs, preventing the objectionable effects of the opiates.

Several of the formulas mentioned below will serve as examples of such combinations of opium derivatives with the corrective remedies above mentioned.

For very small children Waugh's anodyne for infants will be found of great service as a cough sedative. Doctors who have not tried it will be astonished at the bronchial sedation produced in adults when one or two granules of anodyne for infants, or codeine, gr. 1-67, are allowed to dissolve on the tongue and absorb from the mucous membrane of the mouth and throat every five minutes for a number of doses.

Cough (Abbott): Codeine sulphate, gr. 1-67; emetine, gr. 1-67; aconitine amorphous, gr. 1-1500; amorphous hyoscyamine gr. 1-1000) is another valuable cough combination for children. It would be hard to construct a better formula for the early stages of spasmodic irritable coughs.

Calcium sulphide compound (morphine hydrochloride, gr. 1-200; pilocarpine hydrochloride, gr. 1-200; calcium sulphide, gr. 1-40); Dover's powder modified (morphine sulphate, gr. 1-134; emetine, gr. 1-250; camphor monobromated, gr. 1-12); and Cough (Blackham) (morphine sulphate, gr. 1-100; tartar emetic, gr. 1-100; emetine, gr. 1-500; pilocarpine nitrate, gr. 1-250), are formulas illustrative of the value of small doses of morphine combined with proper corrective remedies.

For coughs and colds, and practically every other disease, general *elimination is always in order*. "Clean out, clean up and disinfect," not sometimes, but always. Many remedies, that work like a charm when this is done, will otherwise fail you. Along with this treatment, give specific remedies of definite strength and action for the specific conditions present. One, sometimes two, but certainly never more than three remedies can be indicated at one time. Polypharmacy certainly should have no place in the treatment of coughs and colds. Cough syrups and compound cough tablets are the product of polypharmacy; they are unscientific, unreliable and will seldom be used by the thinking doctor. They usually contain opiates, which is another potent reason why they should be discarded. If necessary to give the single remedies in the form of syrups, dissolve them in a little hot water and then add the required simple syrup, simple elixir or glycerin.

No physician who will make a careful study of the scientific indications in respiratory troubles, for apomorphine, emetine, lobelin, sanguinarine nitrate, potassium bichromate, iodized calcium, zinc cyanide, zinc valerianate and aspidospermine, will ever return to the ways of polypharmacy.

Chicago, Ill.

E. G. PAXTON.



## CLINICAL · MEDICINE POST-GRADUATE SCHOOL *of* THERAPEUTICS

George F. Butler, M. D., Director  
Reynold Webb Wilcox, M. D., LL. D.  
Otto Juettner, M. D.

William F. Waugh, A. M., M. D.  
Alfred S. Burdick, A. B., M. D.

### A PERSONAL WORD WITH THE STUDENT

**H**ERE is the long-promised Postgraduate Course 'at last! The first lesson must, naturally, be somewhat rudimentary, and we shall repeat here many facts that are doubtless familiar to most of you. However, even these will bear repetition, and we have the suspicion that even in this introductory lesson there will be found many things which all of us can study with profit. Therefore we must urge you to go through this lesson very carefully and fix all the facts firmly in your memories.

After this lesson we shall depart more and more from the beaten track, our effort being to outline simple principles and help our students to their application. In the first few lessons we shall discuss *Remedies*, describing their physical and other

peculiarities, telling how to administer them, and the general principles involved. In the second part we shall take up their

*Clinical Application*. Those who come into the course late will be supplied with the back lessons, up to the first six months of work.

*Certificates*. — As we have announced before, we shall give a certificate to those covering a prescribed course of study. This will probably be awarded to those who complete a full year's work.

*Expense*. — Some have asked what will be the expense of this course. We answer, to subscribers of **CLINICAL MEDICINE**, *nothing*. Those, however, who desire to

know their monthly markings on their examination questions will be expected to enclose stamps enough to pay the postage.



DR. GEORGE F. BUTLER

Director of Clinical-Medicine Post-Graduate School of Therapeutics;  
Professor and Head of the Department of Therapeutics and Professor of Preventive and Clinical Medicine, Chicago College of Medicine and Surgery; Author of Butler's "Materia Medica, Therapeutics and Pharmacology."

**Examinations.**—A list of questions is given at the conclusion of every lesson. It will be noted that these are of two classes: Questions on the lesson; and research questions. Every student should answer these questions, just as briefly as compatible with clearness. Do this carefully and thoroughly. If you desire answer or criticism, send stamps as above requested. The best of the answers to the research questions will be printed in CLINICAL MEDICINE, as also any illuminating comments, suggestions or puzzling questions suitable for discussion.

**Authorities.**—We recommend that every student provide himself with the following books:

Butler's "Materia Medica and Therapeutics," price \$4.00.

Waugh-Abbott "Textbook of Alkaloidal Therapeutics," price \$2.50.

Wilcox's "Materia Medica and Pharmacy," price \$2.50.

Waugh-Abbott "Treatment of the Sick," price \$5.00.

Simon's "Chemistry," price \$3.00.

Juettner's "Modern Physio-Therapy," price \$6.00.

These can be purchased of any medical-book dealer. Consult our advertising pages.

We shall doubtless suggest other books later. Every physician should be generous with himself when it comes to the purchase of these "tools of his trade."

**Difficulties.**—If there is anything in the text that follows, or suggested in the lesson, that you do not clearly understand, let us know and we will try to help you.

**Blank to be Filled Out.**—Don't fail to fill out the accompanying Membership Blank. We want to "line you up," and know exactly where we stand.

**Mail.**—Address all mail intended for this department to "Director, CLINICAL MEDICINE Post-Graduate School of Therapeutics," 1416 E. Ravenswood Park, Chicago.

## PART I.—LESSON ONE

### DEFINITIONS

**Remedies.**—In a comprehensive sense every means of counteracting, curing or mitigating disease or bodily disorder may be termed a remedy, or remedial agent. The mode of treatment may be preventive, reparative or restorative; but the agents employed by the physician are properly called *remedies*. Although their number is well-nigh as great as the multifarious causes of disease, the chief classes of remedies are comparatively few, and they may be grouped mainly under the following heads:

**Prophylactic**, whereby attention is directed to the immediate environment of the patient, with a view to securing proper sanitation and outward conditions more favorable to recovery as suggested by hygienic laws.

**Sanitary**, when hygienic treatment is combined, as it now usually is, with medicinal remedies, constituting what is known

as regimen, including proper ventilation, temperature, diet, bathing and exercise.

**Imponderable**, as when the forces of light, heat, cold, electricity, etc., are brought into requisition by the aid of science.

**Mechanical**, pertaining to certain surgical methods and remedial applications, or a course in physical training, including the efficacious treatments known as Swedish movements and massage.

**Pharmaceutical**, including a very large and varied class of remedies which are technically termed medicines.

**Physiology** is the study of the functions of the different organs of the animal body under normal conditions.

**Pathology** is the study of the animal body rendered abnormal by disease.

**Pharmacology** is, strictly speaking, the science of the nature and properties of substances used as medicines, but is commonly understood to mean the study of the functions of the animal body rendered

abnormal by drugs, which is really *pharmacodynamics*, or the study of the effects of physical or chemical agencies on living organisms.

Pharmacology, from the broad point of view, includes the various fields of *materia medica*, medical botany, medical zoology, pharmacognosy, pharmacodynamics and pharmacy.

**Materia Medica** deals especially with the sources from which drugs are derived, their chemical and physical properties, their constituent elements, and their general function as substances or agencies in the practice of medicine.

**Pharmacognosy** is a division of *materia medica* and includes the technical study of the crude materials from which animal and vegetable drugs are derived.

**Pharmacy** is restricted to the analysis and determination of drugs, the manipulation by which the active constituents of drugs are rendered available for therapeutic purposes and the art of preparing and dispensing medicines in the best forms for administration.

**Therapeutics** is the art and practice of selecting and applying remedies for sickness and disease, with a view to restoring the individual to his normal condition; or, if such is impossible, the giving of comparative comfort to the invalid. Its range of activity, therefore, is very wide, and a combination of methods is necessary to the resourceful physician. The following general modes of treatment should be considered:

*Psychotherapy* or *Suggestion Therapy* is that mental suggestion or helpful influence on the part of the physician that inspires the patient with faith, confidence and hope, and helps him to gain mastery over himself, to strengthen his will and bring out his latent forces, and, in fine, to build up his individuality. To be successful there must be a harmonious mentality existing between the physician and the patient. This is a subject which should be thoroughly understood by every practising physician and much more time should be given to its study than has heretofore been given

to it by the profession as a whole, or by medical authors and teachers.

*Climatotherapy*, the influence of climates on various diseases.

*Aerotherapy*, exposure to the open air, moist air, dry air, superheated air, etc.

*Dietetic therapy*, including the various diets employed in disease.

*Heliotherapy*, exposure to Finsen's rays, x-rays, or the entire refracted sun's rays.

*Physicomechanical Therapy* includes mechanical vibration and many other useful mechanical procedures.

*Kinesotherapy*, including massage and Swedish movements.

*Hydrotherapy*, is the therapeutic application of water to the body, involving the use of heat and cold with modified massage. *Hypodermatoclysis*, the introduction into the subcutaneous tissues of certain quantities of normal saline solution, and *enteroclysis*, the injection of nutrient material into the intestine, or any rectal enema, are both special and valuable forms of hydrotherapy.

*Electrotherapy* is the application of electricity in various forms to the treatment of certain abnormal conditions.

*Pharmacotherapy* includes the study of medicines proper, or the use of drug-substances in the treatment of disease or abnormal bodily states. Certain arbitrary methods have received special names, such as Empirical, Specific, Statistical, Physiological, Rational Therapeutics, etc.

#### WEIGHTS AND MEASURES\*

For commercial purposes the following weights and measures are employed:

*Avoirdupois Weights*: The pound, divided into 16 ounces.

*Liquid Measures*: The "Wine Measure," of which the U. S. gallon represents a volume of 231 cubic inches, each cubic inch of water at the maximum density (4°C.) being equivalent to 252.892 grains, the weight of a gallon being, therefore, 58,418 grains. The gallon is divided into 8 pints, and the pint is divided into 16 fluidounces,

\*Adapted from Butler's "Textbook of Materia Medica, Pharmacology and Therapeutics."



each ounce containing 8 fluidrams, or 480 minims, the fluidram containing 60 minims.

#### APOTHECARIES' (TROY) WEIGHT

20 grains .....	1 scruple (scr.) or scrupulum
60 grains, or 3 scruples .....	1 dram (dr.) or drachma
480 grains, or 8 drams .....	1 ounce (oz.) or uncia
5760 grains, or 12 ounces .....	1 pound (lb.) or libra

#### APOTHECARIES' (WINE) MEASURE

60 minims (M.) .....	1 fluidram
480 minims, or 8 fluidrams .....	1 fluidounce
7680 minims, or 16 fluidounces .....	1 pint (O.) or octarius
61,440 minims, or 8 pints .....	1 gallon (C.) or congius

This lack of uniformity in the units and the denominations of the three systems of weights and measures is exemplified in the subjoined table. While the two weight systems have a unit in common—the grain—there is no correlation in the higher denominations—ounces and pounds. The desirability of adopting a fixed standard applicable in all cases where great accuracy in weights and measures is requisite has been frequently emphasized by writers on therapeutics. As we have premised, the present difficulty forms a cogent argument in favor of the metric system, as adopted in the United States Pharmacopeia. A remarkable disparity is shown in the liquid measures in which there is no unit in common; a minim is not a grain, nor “a pint a pound the world round.”

1 ounce, avoirdupois .....	437.5 grains
1 ounce, troy, or apothecaries' .....	480 "
1 fluidounce of water (the standard of volume) .....	455.7 "
1 pound, avoirdupois .....	7000 "
1 pound troy, or apothecaries' .....	5760 "
1 minim of water .....	0.05 "
15 grains of water .....	16 minims

In the metric system, as seen below, there is but one group of weights, and these bear a definite relation to volume; for one cubic centimeter of water, the standard of volume, weighs exactly one gram.

#### THE METRIC SYSTEM

The starting point of the metric system is the unit of length, the *meter* (metre), which is the 40,000,000th part of the earth's circumference equidistant from the poles. From this apparently irrelevant measure of length the unit of capacity, or volume, the *liter*, was established, it being the cube of 1-10th of a meter. With equal simplicity and clearness was derived from the meter the unit of weight, the *gram*, which is the weight of that quantity of pure water at the maximum density, 4° C. (39.2° F.)

which will fill the cube of 1-100th part of a meter (cubic centimeter).

The metric system is also known as the decimal system, because its multiples and subdivisions are obtained by ten (Latin *decem*).

#### METRIC TABLE OF LENGTHS

The measures of length employed in prescription writing are the millimeter, centimeter, decimeter and meter.

10 millimeters make 1 centimeter
10 centimeters " 1 decimeter
10 decimeters " 1 meter
1 millimeter, written 1 Mm. or M. 0.001, is equal in inches to .039370432, or approximately 1-25
1 centimeter, written 1 Cm. or M. 0.01, is equal in inches to .39370432, or approximately 2-5
1 decimeter, written 1 dm. or M. 0.1, is equal in inches to 3.9370432, or approximately 4
1 meter, written 1 M. or M. 1., is equal in inches to 39.370432, or approximately 40

#### METRIC TABLE OF CAPACITIES

The only measures of capacity employed in prescription writing are the cubic centimeter and the liter. 1,000 cubic centimeters (Ccm. or Cc.) make 1 liter (L).

#### METRIC TABLE OF WEIGHTS

The weights employed in prescription writing are the milligram, centigram, decigram, gram and kilogram. The other terms in the following table are but rarely employed abroad and never among English-speaking physicians. It will be seen that one kilogram represents 1,000 grams.

10 milligrams make 1 centigram
10 centigrams " 1 decigram
10 decigrams " 1 gram
10 grams " 1 dekagram
10 dekagrams " 1 hectogram
10 hectograms " 1 kilogram
10 kilograms " 1 myriagram

*Abbreviations* for the different divisions and multiples of the gram, with their corresponding equivalents in grains, are as follows:

1 milligram, written 1 mg. or Gm. .001, equals in grains (1-65)
1 centigram, written 1 cg. or Gm. .01, equals in grains (1-6)
1 decigram, written 1 dg. or Gm. .1, equals in grains 1.5432
1 gram, written 1 Gm. or Gm. 1., equals in grains 15.432

In writing prescriptions a physician uses but one system, either the metric or the apothecaries'; therefore, to *write* prescriptions properly he does not need to know how to convert one system into the other. He learns one system and adheres to that.

But to *read* and *understand* prescriptions written or spoken in the system other than the one he employs, he must translate them

## POST-GRADUATE SCHOOL OF THERAPEUTICS

into his own system; and this requires a knowledge of equivalents. Knowing the approximate equivalents it is then merely a matter of multiplication or division to convert a prescription of one system into a prescription of the other system.

### Examples of conversions are:

1 milligram—1-65 grain; 5 milligrams—5-65—1-13 grain  
1 grain—0.065 Gm., therefore 2 grains—2 x 0.065 Gm.—0.13 Gm., and 1-100 grain—1-100x0.065 Gm.—0.00065 Gm., etc.

1 ounce—30.0 Gm.; 4 ounces—30.0 x 4—120.0 Gm.

Approximate and exact equivalents of weights, measures, lengths, in the two systems are:

WEIGHTS	APPROXIMATE	EXACT
1 milligram, 0.001 (Mg)	1-65 or 1-65 grain	0.0154 grain
1 centigram, 0.01 (cg)	1-6 or 10-65 grain	0.1543 "
1 decigram, 0.1 (dg)	1-1-2 grains	1.5432 "
1 gram, 1.0 (Gm)	15 grains	15.4324 "
30 grams, 30.0 (Gm)	1 ounce	462.0 grains
31 grams	1 oz. troy or 48.0 grs.	478.4 "
1 grain (gr. i)	0.065 or 0.06 Gm.	0.065 Gm.
10 grains (gr. x)	0.65 or 0.7 Gm.	0.648 "
15 grains (gr. xv)	1.0 Gm.	0.974 "
1 scruple (scr. i)	1.3 Gm.	1.296 "
1 dram (dr. i)	4 Gm.	3.89 "
1 ounce, troy (oz. i)	30 or 31 Gm.	31.1 "
1 ounce, avoirdupois (oz)	28 Gm.	28.35 "

### PRESCRIBING

#### Estimation of Amounts in a Prescription

When the various ingredients which are to enter into a prescription have been determined the next consideration is the amount of each desired. The bottles found in drugstores have capacities of 1, 2 and 4 fluidrams, and 1, 2, 3, 4, 6, 8, 12, 16, and 32 fluidounces, or 4, 8, 15, 30, 60, 90, 120, 240, 500, and 100 Cc.; and it is always advisable to prescribe mixtures of these sizes, if mixtures are prescribed at all; otherwise the patient may fear some error from receiving a bottle only partly full, as when a 10-ounce mixture is placed in a 12-ounce bottle.

As a rule it is better to prescribe small quantities rather than large ones, ordering no more of a medicine than the patient will probably need until the next visit.

Having decided, then, how many doses to order, and the dose of each ingredient, it is a simple matter of multiplication to figure how much of each ingredient shall go into the prescription.

The following is a very simple rule for estimating amounts in apothecaries' measure:

In an 8-ounce mixture, the dose being one dram, take as many drams of the medicine as there are wanted minims or

grains to the dose. It will be observed that in this case the basis is an 8-ounce mixture, yet it typifies the rule which, when thoroughly understood, may be easily applied to a 4-ounce or a 2-ounce mixture, by taking one-half or one-fourth as many drams; while if the dose is to be a dessert-spoonful, or two drams, it is only necessary to take one-half as many drams to an 8-ounce mixture, reducing for smaller mixtures in accordance with the rule. If the dose be a tablespoonful, or four drams, one-fourth as many drams must be taken to an 8-ounce mixture as there are minims or grains to the dose. This rule, while not fractionally exact, is sufficiently accurate for all practical purposes.

Examples: We desire to give an 8-ounce mixture with one dram for a dose, each dose to contain 12 grains of potassium bromide and 10 grains of chloral, the vehicle to be syrup of orange and water. We have here, then, 64 doses of a dram each. To be exact, therefore, we should have 768 grains of potassium bromide, or 12 drams and 48 grains, but following the rule, we put in the mixture 12 drams, since we desire 12 grains to the dose. Of chloral we would require exactly 640 grains, or 10 drams and 40 grains, but we use the round number, 10 drams in the mixture. We see that in each case there is but the fraction of a grain short in the dose.

The prescription would consequently be written as follows:

Potassii bromidi .....drams. 12  
Chlorali hydrati .....drams. 10  
Syrupi aurantii .....flozs. 4  
Aque, q. s. ad.....flozs. 8  
M. et. Sig.: Teaspoonful for a dose.

If only a four-ounce mixture were desired with the same dose of each medication, then but 6 drams of potassium bromide and but 5 drams of chloral hydrate should be added to the mixture; for a 2-ounce mixture but 3 drams of potassium bromide and 2 1-2 drams of chloral would be required.

Or if we wish the medicaments in greater dilution, we may halve the amounts and double the dose, as follows:

Potassii bromidi .....drams. 6  
Chlorali hydrati .....drams. 5  
Syrupi aurantii .....flozs. 4  
Aque, q. s. ad.....flozs. 8  
M. et. Sig.: A dessertspoonful for a dose.

The amount of each ingredient thus varies with the size of the mixture, and inversely as the dose—i. e., the larger the mixture the greater the amount of the ingredients, the dose being the same; and the larger the dose the smaller the amount of the ingredients, the size of the mixture remaining the same.

*Measures Used in Administration.*—The next thing to be determined is the manner in which the medicine should be measured out to the patient for internal use. A graduated medicine glass is always preferable to a domestic measure and should be employed in all cases. Teaspoons, as well as dessertspoons and tablespoons, vary considerably in size. A teaspoonful, considered to be equivalent to one fluidram, may contain from one-half to two fluidrams; a dessertspoonful, which should be equivalent to two fluidrams, and a tablespoonful, equal to one-half fluidounce, vary almost as much in quantity. This is only one of many reasons why the galenical remedies, too often variable in strength and undependable in dosage, may prove disappointing. Absolute accuracy of dosage is well-nigh impossible in liquid mixtures, especially as ordinarily given; with very potent remedies this is a most important consideration.

Ordinarily it is unwise to prescribe medicines to be dropped out, since a drop varies greatly in dimensions, according to the viscosity and specific gravity of the fluid, the shape, size and character of the neck, and lip of the bottle, and the steadiness of the hand in dropping. Medicine droppers are equally unreliable.

*Drops*, therefore, are *not accurate measures*. Sometimes, however, it is desirable to order medicines in drops, and then it is well to remember that aqueous liquids and fixed oils drop about one drop to the minim, and volatile oils and alcoholic liquids, such as tinctures and fluid extracts drop about two drops to the minim.

There are exactly 60 minims to any fluid in 1 fluidram, while 60 drops may be greater or less than 1 fluidram, as the following list shows:

	DROPS IN FLUIDRAM (60 M)	W'THS OF FLUIDRAM GR.	GM.
Carbolic acid .....	111	59	3.82
Aromatic sulphuric acid .....	146	53	3.43
Ether .....	176	30	2.52
Chloroform .....	250	80	5.18
Creosote .....	122	56 1-2	3.66
Fluidextract belladonna .....	156	57	3.69
" colchicum root .....	160	55	3.50
Compound solution iodine .....	63	59	3.82
Fluidextract digitalis .....	134	62	4.01
Fowler's solution .....	37	55	3.56
Oil of cloves .....	130	37	3.69
Croton oil .....	104	50	3.24
Aromatic spirit of ammonia .....	142	48	3.11
Syrup iodide of iron .....	65	77	4.08
Compound syrup of squills .....	102	70	4.53
Tincture aconite .....	146	46	2.98
" belladonna .....	137	53	3.43
" cantharidis .....	131	51	3.33
" iron chloride .....	150	53	3.43
" nux vomica .....	140	44	2.85
" opium .....	130	53	3.43
" veratrum .....	145	46	2.98
Wine of colchicum seed .....	111	54	3.49

**Incompatibility.**—When different substances, whether liquid or solid, are combined or associated and undergo a more or less complete change, they are said to be incompatible, the incompatibility consisting of two kinds; chemical and pharmaceutical. Drugs that are opposed in their physiological action are spoken of as antagonists.

The commonest forms of *chemical incompatibility* occur under the following conditions:

1. When a new and insoluble salt is formed, resulting from a mixture of solutions of soluble salts. Example (1): Mixing solutions of lead acetate and zinc sulphate, both soluble salts, but producing by chemical decomposition a new and insoluble salt, the sulphate of lead; which is precipitated.

2. By the addition of a strong acid to solutions of salts of weak or volatile acids, such as carbonates and bicarbonates, with resulting decomposition. As a matter of fact acids and alkalis, and substances containing them, should rarely be combined. Example (2): Ammonium carbonate, the salt of a weak acid radical, added to syrup of squill, containing acetic acid, causes decomposition to take place, with effervescence and the liberation of carbonic-acid gas.

3. Salts of a feeble or volatile base are decomposed by the addition of a strong alkali. Example (3): The evolution of ammonia when a strong alkali is added to ammonia alum, and when chloral hydrate

is decomposed by alkalis, such as aromatic spirit of ammonia, lime solution, etc.

4. Alkaloids, or their salts, are thrown out of solution or precipitated from their solutions by the addition of alkalis or alkaline salts; also by tannic acid, the salicylates, benzoates and bichromates, iodine, bromine, the iodides and bromides, corrosive sublimate and other mercury salts. Example (4): Strychnine sulphate in solution is precipitated as the insoluble strychnine bromide by the addition of a larger proportion of potassium bromide. Quinine sulphate is precipitated as insoluble quinine acetate when mixed with a solution of potassium acetate.

5. Tannic and gallic acids and preparations containing them, as well as many other vegetable acids, produce discoloration or precipitation of iron and many of its compounds. Tannic acid is incompatible with the alkaloids. Example (5): Ink is the best illustration of this incompatibility. Writing fluids are usually combinations of tannic or gallic acid with some preparation of iron. Add the tincture of chloride of iron to tincture of cinchona and notice the discoloration.

There are certain preparations of iron like the compounds with ammonium or sodium citrate (see *tinctura ferri citrochloridi* N. F., tasteless tincture of iron) which produce little discoloration with vegetable astringents, and none at all with vegetable preparations containing tannic or gallic acid.

6. Iodine and the iodides and mercuric chloride (corrosive sublimate) are not well-suited to combination. Not only do they precipitate many of the alkaloids, but they enter into combinations with many of the metals and other substances.

7. Oxidizing agents, such as potassium chlorate and permanganate, should not be mixed dry with reducing agents, such as sulphur, sugar, tannic acid, glycerin, etc.

Other incompatibilities will be brought out in the discussion.

*Pharmaceutical Incompatibility* is the production of a sediment by change of solvent without chemical action. Examples: Veg-

etable tinctures of resinous drugs with water, such as tincture of guaiac and water, copaiba and oils with aqueous preparations, spirit of camphor with water, spirit of nitrous ether with mucilage of acacia, etc. The separation or precipitation may frequently be prevented by the intervention of some viscid substance, such as syrup, glucose, glycerin, mucilage of acacia, etc.\*

**Antagonists.**—Antagonists are drugs which are opposed to each other in their physiological effects.

No general rule can be laid down for the avoidance of antagonism. Some of our most valuable drugs contain active principles which are physiologically opposed to each other in their action: instance, *jaborandi*, which contains two absolutely antagonistic alkaloids, *pilocarpine* and *jaborine*. This is a commonly repeated illustration of the absurdity of some galenic preparations—and it shows why they often unexpectedly fail.

Opium is a conspicuous example of a complex remedy, containing besides gum, sugar, etc., eighteen different alkaloids, two neutral principles and two peculiar acids; so that a prescriber of the crude drug opium, while he may, perhaps, flatter himself that he is conforming strictly to pharmaceutical simplicity, is in effect a polypharmacist of most pronounced type. Moreover, not only are the constituents of opium very numerous, but, like others mentioned, the drug affords in its thebaine and morphine a further illustration of direct physiological antagonism.

Again, physiological antagonists are often given together; as atropine and morphine, or aconitine and digitalin in certain cases of cardiac arrhythmia, or as in the case of the invaluable "defervescent compound" containing aconitine, digitalin and veratrine.

We cannot too strongly recommend that physicians ignorant of the action of drugs, if they prescribe at all should avoid including many remedies in one prescription.

\*NOTE: A complete reference list of the common incompatibilities of individual drugs may be found in Butler's "Textbook of Materia Medica, Therapeutics and Pharmacology."

But, given a competent and thorough knowledge of the action of drugs, the exact condition of the patient, and the things to be accomplished with the remedies employed, the physician is justified in giving more than one drug at once, since if he is perfectly familiar with the several remedies, he can foretell with nicety the effect to be produced by their combination. In all cases a physician should be as certain of the action, strength and reliability of the drugs he administers as the surgeon of the aseptic condition of his hands and instruments.

#### MEDICINAL AGENTS

**Galenics.**—Medicines are said to be galenic, (a) when they are of vegetable origin and not chemic or spagyric; (b) when they are designed for the use of human patients, and are not veterinary, (c) the term is often nearly equivalent to officinal, or official, in the modern sense of the word.

**Officinal** drugs are those prepared or kept by the druggist upon his own responsibility, bearing only the authority of the shop (*officina*, a shop). Such preparations are often included in works on *materia medica*, and, together with those emanating from other individual formulæ, are called "unofficial."

The term "unofficial" it will be seen is a solecism; and it follows, moreover, that there are many preparations which are in pharmacy officinal, but not official, and that a pharmacopeial formula cannot possibly be officinal; although, speaking generally, all official drugs are officinal in that they are kept or prepared in the druggist's shop.

**Official** drugs are those which bear the stamp of professional—i. e., official sanction (*officinum*, authority). They are practically ordered by the Pharmacopeia to be kept in all druggists' shops. A "Pharmacopeial preparation" is an "official preparation."

**Pharmacopeia**, a book compiled by the government, or, as in the United States, a National Committee on Revision, and published by authority, establishing standards for the identification, purity, strength and quality, and giving directions for the puri-

fication, valuation, preparation, compounding and preservation of drugs, chemical and medical substances. By legislative enactment it is made a legal authority within the jurisdiction of many states. The United States Pharmacopeia is revised decennially; the present or eighth edition, which is the first to contain doses, became official on September 1, 1905.

**Dispensatory.**—This is a compilation of and commentary on one or more pharmacopeias, enlarging the authoritative but restricted pharmacopeial formulæ by including the medical and physical history of the various substances, with directions regarding dosage, together with observations on their physiological action and therapeutics. It also contains information concerning drugs not accepted by pharmacopeial authority, yet which are of occasional use or interest. The Dispensatory is in effect a private publication and unofficial, in this respect differing essentially from a pharmacopeia.

**The National Formulary** is a work published under the direction of the American Pharmaceutical Association, and designed to standardize the formulæ of such much employed preparations as are not included in the United States Pharmacopeia. Its preparations are not recognized as official, comprising largely imitations, adaptations and improvements upon the formulæ of the most widely used and generally popular proprietary remedies.

The following are the abbreviations used to indicate which of these is the authority for any given formula, or which formula is intended when more than one go by the same name:

- U. S. P. United States Pharmacopeia
- B. P. British Pharmacopeia
- P. G. German Pharmacopeia
- N. F. National Formulary
- U. S. D. United States Dispensatory
- N. S. D. National Standard Dispensatory

#### Galenical Preparations

The Pharmaceutical preparations may be divided as follows:\*

\*NOTE: We refer to Wilcox's *Materia Medica and Pharmacy*, which gives everything necessary for a physician to know about medical pharmacy.



- I. Solutions
- II. Liquid mixtures—internal
- III. Extractive preparations—liquid and solid
- V. Mixtures for external use—liquids and solids
- IV. Mixtures of solids—internal

The various pharmaceutical preparations are the outgrowth of efforts to render medicines more palatable, active and efficient. Vegetable drugs owe what medicinal value they have to certain active principles, so-called, and it has been the constant aim of pharmacists to prepare tinctures, fluid extracts, extracts, etc., in such a manner as to retain the largest possible amount of the active medicinal principles of a drug to the exclusion of the inert substances.

The *standardization of vegetable drugs* was a great advance in pharmacy. This is to specify an upper or lower limit, or both, of the active constituents which a drug or its preparation must contain in order to be official, and prescribing an appropriate process for its determination. It is very difficult to establish satisfactory processes for standardizing drugs and preparations, and it is particularly unsatisfactory when the preparation contains a number of alkaloids of opposed action, since the article is usually standardized to total alkaloids, or to the most important alkaloid.

In practice it would be better for the physician to give the active principle itself than even a standardized preparation said to contain a certain percentage of the active constituent.

The *Active Principles of Vegetable Drugs*, or those substances to which the chief or whole medicinal properties of the drug are due, are

#### PROXIMATE PRINCIPLES

**Alkaloids.**—These are organic substances, containing nitrogen, having properties resembling alkalis, and acting as bases, uniting with acids to form salts which are usually crystallizable. Chemically, alkaloids are either amides or amines. If the former, they are composed of carbon, hydrogen, nitrogen and oxygen; if the latter, the oxygen is wanting. The oxygen-free alkaloids are volatile liquids; to this class belong such alkaloids as cicutine, nicotine and sparteine. Please note carefully that

the amide alkaloids are solid and odorless, while the amine alkaloids are liquid, volatile and have an ammoniacal odor.

A solid alkaloid may be either *crystalline* or *amorphous*, the latter meaning simply noncrystalline. Many of the amorphous alkaloids are more or less impure, or of uneven quality from admixture with inert substances or other active principles.

Alkaloids either exist in the plant as proximate principles, or are derived from other alkaloids. Putrefactive alkaloids, or ptomaines, are formed in the animal economy, but are not of therapeutic interest—though a factor in disease.

Alkaloids are for the most part insoluble in water, but are usually soluble in alcohol, chloroform, benzol, benzin and frequently in ether. Their salts, on the other hand, are mostly soluble in water, less so in alcohol, but insoluble in chloroform, ether, benzin and benzol. On account of their water-solubility the salts are commonly used, though when they are to be dissolved in oils or fats or in etherial liquids, as collodion, the free, basic alkaloids are to be used. They have a bitter taste, making it undesirable to give them in solution. Their English names terminate in *ine*, their Latin names in *ina*. Alkaloids are unquestionably the most important of all organic compounds used in medicine, being the most active and important medicinal constituents of plants.

Examples in U. S. P.: Aconitine, atropine, cocaine, morphine, strychnine.

**Glucosides.**—Glucosides are sometimes the only active principles of the plants in which they are found, but are often associated with resins, oils, alkaloids and bitter principles. When they are heated with a diluted mineral acid, or are acted upon by a ferment, they split up into glucose and some other substances (alcohols, aldehydes and phenols). With few exceptions they contain no nitrogen. Their English names terminate in *in*, their Latin in *inum*.

Among those plant-principles known as *neutrals*, not glucosides, may be named santonin, picrotoxin, elaterin, aloin, glycyrrhizin.

Examples of glucosides in U. S. P.: Salicin, strophanthin.

**Amaroids, or Bitter Principles.**—These are bitter extractive principles but of such varied nature they do not admit of any chemical diagnosis. The term also includes all distinctly bitter extractives of definite chemical composition, other than alkaloids and glucosides. Their English and Latin terminations are the same as for glucosides. Glucosides and amaroids are not the only principles, however, whose names end in *in*.

**Resins** are of very indefinite composition. They are natural or induced solid or semi-solid exudations from plants, mostly uncrystallizable, fusible, insoluble in water, generally soluble in alkalis and volatile oils, and also in one or more of the following: Alcohol, ether, chloroform and fixed oils. Examples in U. S. P.: Resina jalapæ, podophyli and scammonii.

**Concentrations.**—There is one class of remedies known as "concentrations." These are not definite chemical compounds nor, strictly speaking, active principles of plants, although commonly referred to as such and, indeed, serving as such in practice. It is difficult to define these concentrations, excepting to say that they contain the virtues of the drug-plant in a concrete and condensed form, and while indefinite mixtures, a large proportion of inert matter (plant-dirt) has been excluded by peculiar manipulations. The earliest of these concentrations were what were then called the "resinoids." Like the preceding principles their names end in *inum* (Latin, *inum*). Cactin, juglandin and hydrastin are examples.

**Oleoresins** are natural solutions of resins in volatile oils. Examples in the U. S. P.: Oleoresina aspidii, capsici, cubebæ, lupulini, piperis and zingiberis.

**Gum-resins** are natural mixtures of gum and resin, being usually exudations from plants. Examples in U. S. P.: Asafoetida, myrrha, scammonium.

**Balsams** are resinous substances, liquid or soft, and contain an odorous principle and benzoic or cinnamic acid, or both.

Examples in U. S. P.: Balsamum peruvianum and toltanum, benzoinum, styrax.

**Volatile or Essential Oils** are usually the odorous principles of plants, preexisting in the plant or being produced by the reaction of certain constituents upon being brought in contact with water. Their composition varies greatly and they may be divided into four classes: (1) Terpenes, consisting of carbon and hydrogen: e. g., oil of turpentine. (2) Oxygenated, containing oxygen; e. g., oil of eucalyptus. (3) Sulphurated, containing sulphur; e. g., volatile oil of mustard. (4) Nitrogenated, containing nitrogen; e. g., oil of bitter almond.

**Fixed Oils** are esters of the higher fatty acids which at ordinary temperatures remain liquid. The fatty acids commonly entering into their composition are oleic, palmitic and stearic. Examples in U. S. P.: oleum morrhue, olive, ricini, tiglli.

#### THE ALKALOIDS

As before stated, the alkaloids are without doubt the most active and potent of all the active principles. They have the advantages of being concentrated, uniform in strength and reliable in action.

#### Concentrated and Easily Absorbed.

—The hesitation which some physicians show to use the alkaloids in their general practice seems strange when we consider that for their hypodermic injections they employ exclusively these active substances that are chemically defined; and that, for this purpose, they never use tinctures, extracts (solid or fluid), decoctions or electuaries. Why should the cellular tissue be given the prerogative of a treatment by simple, active substances, easily absorbable, while the gastrointestinal mucous membranes are rudely attacked by gross, irritating, or often inert and unreliable substances whose absorption often is extremely difficult?

**Exactness.**—Most of the advantages (and there are many) hinging upon the use of the alkaloids as medicines arise from their exactness. A pure alkaloid being always precisely the same thing, it follows that the administration of any given

quantity of that alkaloid will occasion exactly the same effect upon the patient. For this reason the physiologic experimentation upon which the scientific use of drugs is mainly based was made exclusively with the alkaloids as agents, it being impossible to obtain definite, uniform results from agents which were not themselves uniform. This fact, therefore, gives the clinician, in the first place, a precise knowledge as to the nature of his drug, and of what it will do when it is administered to a patient.

There remains, of course, as a problem to be solved, the exact condition of the patient, this constituting the art of diagnosing. When we know exactly what our drug will do, it is up to us to ascertain with the utmost exactness in our power, the condition of the patient. We may then apply our exactly acting drug with unvarying accuracy.

**Ease of Administration, Rapidity of Action, Palatability.**—Other less important but still weighty considerations are the smallness of the dose, its ease of administration, its quick solubility and absorptibility, its consequent speed in getting to work, and lastly, the palatability—the unpleasantness of most medicines being dependent upon the inert and useless ingredients by which the active principles are accompanied.

**Less Tendency to Nausea.**—In addition there must be considered the absence of the consequent nausea that tends to interfere with the retention and absorption of the remedy.

The soluble salts of the alkaloids can be quickly administered hypodermically when speed is essential. The quickness of the action permits a closeness in getting to work, which will in many instances give much more favorable results of the treatment than when slowly acting, uncertain remedies are administered in the beginning of acute disease. While the alkaloids and other active principles were primarily administered as substitutes for the cruder preparations of the plant from which they were derived, their use has practically developed a new

art of therapeutics, based not on the crude drug but on the active principles themselves, whose employment has enabled physicians skilled in their use to accomplish tasks promptly that they would not have dared to attempt with the older, less efficient and uncertain methods at their command.

For these reasons the art of applied therapeutics assumes a totally different aspect to the physician who is proficient in the use of active principles, as compared with the position he occupied before commencing the use of these agents. It is for this reason that the language of the user of active principles seems unwarrantably enthusiastic to those who have not yet become familiar with these agents and the method of treatment made possible by their employment. Hence no one has a right to judge of this matter until he has familiarized himself with the actual employment of these agents.

#### PHYSIOTHERAPY (PHYSICAL THERAPEUTICS)

The various nonmedicinal therapeutic methods which are being so largely employed, even by general practitioners, nowadays, are classified under the general title of "physiotherapy." The latter term embraces the different methods of treatment that have been variously designated as "physical therapeutics," "physiological therapeutics," "mechanical therapeutics," etc. All these special names are open to objections of one kind or another. The term *physiotherapy* has been generally accepted and adopted in Europe. It includes all therapeutic methods other than drug-giving, and suggests in its very name the rationale of the therapeutic methods to which it refers, to wit, the employment of natural (the Greek word "*physis*" meaning "nature") forces and agencies, including air, light, water, heat, food, etc. The significance of the word "natural" in its physiotherapeutic sense will become more apparent as we progress in our discussion.

There are four distinct groups of therapeutic methods included under the general head of physiotherapy, to wit:

### 1. Strictly Physiological Methods.—

By a physiological agent is meant a force that is contained and constantly at work in the living animal body. It is the sum-total of these forces in the body that keeps the physiologic machinery of the organism in motion. Our knowledge of the conditions under which life is possible and health established and preserved, enables us to define the laws of health (*hygiene*, from the Greek word "*hygieia*," which means "health"). If disease in any given case is due to the nonapplication or misapplication of a hygienic law, the cure of the disease would—other things being equal—consist in intelligently dealing with the cause of the trouble. Enforce the application of the law which has been violated, correct the hygienic or dietetic error and in this way restore one of the conditions of health. This is pure physiological therapy. Strictly physiologic therapeutic agents are suggested by our knowledge of hygiene and dietetics, including factors which are closely allied to either, e. g. climate, compressed air, individual feeding, etc. These strictly physiologic methods are preventive as well as curative.

2. Strictly Physical Methods.—A physical agent is an extraneous force which is capable of acting upon the animal organism, such as light, heat, electricity, etc. We say an *extraneous* force because its source of origin and sphere of activity is the vast domain of nature and it acts upon the body only incidentally. We may conveniently recognize four different varieties of these physical agents, to wit:

(a) *Heat*, or a relative degree of temperature. It may be any degree of temperature from extreme cold to extreme heat. Since the idea of high or low temperature is inseparable from the agent which carries the temperature (e. g. water, air), we classify the subject of heat in keeping with the agent which is employed to carry the temperature. Thus we get the therapy of cold, warm or hot water and air (thermo-, hydro-, aero-, thermotherapy) as distinct subdivisions of the subject.

Hydrotherapy is primarily a *physical* method because of the physical character

of the agent (heat or cold) and its carrier (water). In a secondary sense, hydrotherapy is also a true *physiologic* method, because it enables us to influence the process of blood-circulation and, through the latter, the process of organic combustion (heat-production, oxidation, metabolism) in the animal economy. In this secondary sense many other therapeutic methods may be called physiologic. It is this fact which has given rise to the unfortunate confusion in the use of the ill-coined term "*physiologic therapeutics*."

(b) *Electricity* in its manifold forms of manifestation. The great importance of electricity in almost every field of human activity, together with the sensational advent of the mysterious Roentgen-rays, has pushed electricity in the foreground of professional interest as a therapeutic agent. Abstracting from the irresponsible claims made by enthusiasts, there is no doubt that the various electrical modalities have a place in therapeutics and are of the greatest clinical value, if applied by a resourceful mind and a skilled hand. The electrical modalities of greatest value are the following: *galvanism* (constant currents), *faradism* (interrupted currents), *frictional* (static) currents and the so-called *high frequency* currents.

(c) *Light*, or the demonstrable radiations of the sun. The light of the sun is a compound of various forms of radiating energy, as shown by the composition of the so-called "*solar spectrum*." The employment of the energy of the solar spectrum or any part of it in the treatment of disease is *phototherapy*. This energy may be produced artificially. The electric arc-light and the incandescent light resemble the sun in some features of their spectra. The solar spectrum contains seven visible fields, to wit: red and orange (both largely calorific, thermic or heat-producing), yellow and green (both largely luminous or light-producing), blue, indigo and violet (chemical or actinic rays). All artificial sources of light contain some parts of these spectral rays and are classified under the head of phototherapy. Ultraviolet rays represent a

part of the invisible part of the solar spectrum and belong likewise to phototherapy.

(d) *Nonspectral radiations* represent mysterious forms of energy whose natural history is largely a matter of speculative knowledge. These radiations, so far as we know, do not belong to the solar spectrum. The best known examples of nonspectral radiations are the Roentgen-rays and the waves of energy emanating from radioactive substances like radium. There are many other forms of radiating energy in nature whose presence and physical characteristics are as yet only a matter of speculation, although knowledge along these lines is rapidly being acquired in these days of wireless telegraphy and other wonderful discoveries. The  $n$ -rays, the radiating forces emanating from the living human body and, in fact, from all organic matter, the waves of animal magnetism, suggestion and hypnotism represent forms of radiating energy that engage the molecules of ether and are thus carried from generator to receiver, from nerve-cell to nerve-cell, from organic molecule to organic molecule. There can be no doubt nowadays concerning the physical basis of suggestive and other mental phenomena. The therapeutic use of all non-spectral radiations are classified under the head of *radiotherapy* (Roentgen-rays, etc.). For the sake of completeness let us add the therapeutic uses of sound-waves (therapy of music).

3. **Mechanical Methods** consist in some form or other of manipulation of the tissues of the body by means of the hand or an instrument to take its place (massage, Swedish movements, vibration, oscillation, Bier's hyperemia, etc.).

4. **Physiochemical Methods** are of recent origin, but have risen to a place of much importance clinically. They consist in the use of organic matter in an unchanged or in an altered form or in the employment of derivatives of organic matter (serotherapy, organotherapy, animal extracts, antitoxins, opsonins, etc.).

The four groups mentioned and their subdivisions represent the entire field of physiotherapy. In keeping with the clas-

sification given we will, in our subsequent discussions, consider the relation of each individual physiotherapeutic agent to the clinical problems that confront us in the treatment of disease. In doing so we shall be ever mindful of the spirit of modern medicine which always seeks to adapt the best means to the purpose to be accomplished. To use every available therapeutic agent legitimately at the right time, in the proper place and in the right manner, this after all should be the end and purpose of all therapeutic knowledge.

### EXAMINATION QUESTIONS

1. What is a remedy? How may remedies be defined?
2. What is pharmacology? What is the common understanding of the meaning of this term, and what term correctly covers the latter?
3. Define *materia medica*, *pharmacognosy*, *therapeutics*, *pharmacy*.
4. What is the weight of a gallon of water? Of a minim? At what temperature is this determined?
5. What is the difference between a troy ounce and avoirdupois ounce? What system of weights and measures is now official in the U. S. Pharmacopeia.
6. Is one minim equal to one drop? Is there an equal number of drops to the dram of water, tinctures, oils, spirits, glycerin, mineral acids?
7. Name the advantages of the metric system. Its disadvantages.
8. What is the advantage of the metric unit, and how is it determined? How are the liter and the gram derived from the unit?
9. Write a prescription for a 3-ounce mixture (troy) containing appropriate amounts of strychnine nitrate, Fowler's solution, and a suitable vehicle. Also write the same prescription for a 100 Cc. mixture, metric system.
10. Give a metric formula for a laxative pill containing three or more ingredients. Give reasons for the proportions adopted.
11. Write a prescription for a 4-ounce mixture to contain 5 grains of chloral and 1-8 grain of morphine to each teaspoonful. Also a prescription for an 8-ounce mixture containing 8 grains of potassium bromide, 10 minims of tincture of digitalis, and 15 minims of tincture of gentian to each tablespoonful dose.
12. At what temperature, both centigrade and Fahrenheit, has water its greatest volume? At what temperature its smallest volume?
13. What is the difference between the class of chemicals known as amides and amines?
14. Which class of alkaloids contains oxygen, and which do not? Give a number of examples with their chemical formulas.
15. Enumerate some of the disadvantages and dangers of liquid prescriptions containing alkaloids, including those as to dosage and incompatibilities. Give an example of each.



16. Give two examples each of incompatibilities—chemical, pharmaceutical, physiological.

17. Write out carefully what objections there may be to any of the following prescriptions, in a chemical, pharmaceutical or pharmacodynamic sense:

- (a) Quinine sulphate.....grs. 30  
Potassium iodide.....drs. 2  
Syrup of sarsaparilla.....ozs. 8
- (b) Sodium bicarbonate.....grs. 80  
Dilute nitrohydrochloric acid.....drs. 2  
Compound tincture of gentian.....oz. 1  
Syrup of ginger.....ozs. 2  
Peppermint water, enough to make.....ozs. 8
- (c) Strychnine sulphate.....gr. 1  
Compound tincture of cinchona.....ozs. 2  
Syrup of orange peel.....ozs. 2  
Sodium bicarbonate.....dr. 1  
Water, enough to make.....ozs. 8
- (d) Morphine sulphate.....grs. 4  
Potassium bromide.....drs. 2  
Syrup of wild cherry.....ozs. 4

18. Epitomize the advantages of the active principles.

19. Give a classification of the different active principles.

20. Give advantages and disadvantages of standardization.

21. Differentiate between physiologic and physical methods and classify the forms of the latter.

### RESEARCH QUESTIONS

1. Look up the glucosides and resins and tell about their chemical and pharmaceutical incompatibilities.

2. Submit two prescriptions, if possible from your own experience, each illustrating chemical and pharmaceutical incompatibility. Give the reasons.

3. Define the term spagyric.

4. Tell something about Galen and of his influence in medicine. (Limit 25 or 30 words.)

5. When and where was the very first pharmacopeia adopted? How often is the U. S. P. revised and by whom? How is the revising body formed? When was the first edition issued?

6. Name ten preparations of the National Formulary which you consider imitations of proprietary remedies, giving the latter's names.

7. Name a basic alkaloid which is comparatively soluble in water.

8. Which of the alkaloids were the first to be isolated, and by whom?

9. What is the meaning of ester? Give an older synonym.

10. Define and tell about isomerism in alkaloids, giving examples.

11. What are the animal alkaloids? Name several.

12. Tell something (25 to 50 words) about toxins, antitoxins and opsonins. What are the three glands whose secretions are of most interest in immunity, according to Sajous' theory? (See back numbers of CLINICAL MEDICINE.)

13. Measure carefully your tea-, dessert- and tablespoons of the different sizes available, and report the exact results.

14. Which graduates for small quantities are the more accurate, the cylindrical or tapering?

15. Drop into a small graduate 100 drops each of the various classes of liquid galenicals, repeating the experiment with different kinds of vials. Report the measure noted in each instance, and note the differences in the lips and stoppers.

16. Differentiate carefully between galvanic, faradic and static electricity.

17. What is the physiologic effect of external applications of cold?

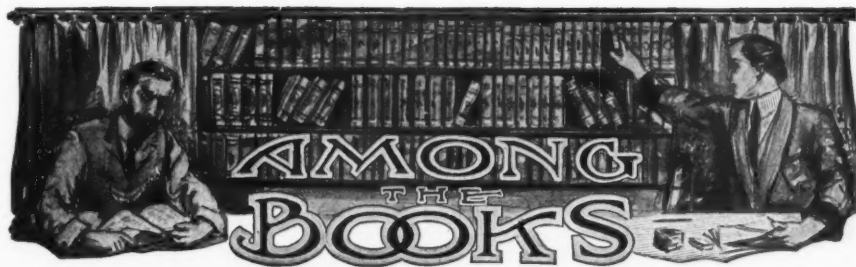
Go through these questions carefully and at your leisure, sending in your answers, however, as soon as you can, since the interval between the two issues is very short, and we want your material, the best of it, available for our next number. Ask questions—lots of them. We don't want to leave a single obscure point or to leave untouched anything that may be of assistance to any one. In answering these questions do not confine yourself to the lesson-text, or even to the suggested books of reference. Go to anything and everything that you may have, and especially draw upon your own experience.

Now, fellow students, it's up to you!

### BOOST A BIT

Here! you discontented knocker,  
Growlin' 'bout the country's ills;  
Chloroform yer dismal talker;  
Take a course o' liver pills.  
Stop yer darn ki-o-tee howlin',  
Chaw some sand an' git some grit;  
Don't sit in the dumps a-growlin',  
Jump the roost  
An' boost  
A bit!

Fall in while the band's a playin',  
Ketch the step an' march along—  
'Stead o' pessimistic brayin',  
Jine the hallelayah song!  
Drop yer hammer—do some rootin'—  
Grab a horn, you cuss, and split  
Every echo with yet tootin'—  
Jump the roost  
An' boost  
A bit!



### INTERNATIONAL CLINICS

A quarterly of illustrated lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by Dr. W. T. Longcope. Vol. II, 1907. Publishers, J. B. Lippincott Company. Price \$2.00.

The volume contains many exceedingly valuable articles on treatment, medicine, surgery, gynecology, pediatrics, neurology and Pathology, all well illustrated.

While there is not an indifferent or mediocre article among the twenty-five, two of them fastened our attention, to wit: "Management of Exhaustion States in Men," by Dr. L. Madison Taylor, and "Insanity in the Aged," by Dr. Charles W. Burr.

Neurology has far advanced in our day, anatomically and physiologically, and therefore therapeutically as well. The modern physician can localize the nervous diseases of his patients in his own mind and treat them the better for it. There is so much good sense in these two articles, evidently the result of personal trained power of observation, that those whose practice is not so extensive in mental diseases can profit from them opportunely.

Vol. III of the same International Clinics, 1907, contains instructive articles in addition to the departments of Vol. II, also articles on genitourinary diseases, in which department there is a very important and practical article upon a new subject, to-wit: "Spermatic Insufficiency and Diastematic Insufficiency," by Ancel and Bouin, assistant professors in the medical faculties of Lyons and Nancy France. "We know," say they, "that the testicle is composed of

two separate and distinct glands that intertwine with each other; the seminal and the interstitial gland or diastematic gland (from diadryua—must be 'diadreenai' to run through—on account of its situation between the seminiferous tubes). The one of these two is contained in the seminal tubes, the second is situated in their interstices," etc. The subject is evidently of important bearing on male impotence.

Another valuable (among many) valuable articles is the one on "How to Turn Back the Upper Eyelid," by Dr. Raymond Beal. It is a useful accomplishment not only for the ophthalmic specialist but perhaps more so for the general practitioner.

### NOTHNAGEL'S "DISEASES OF THE INTESTINES AND PERITONEUM"

Nothnagel's Practice, Diseases of the Intestines and Peritoneum. By Dr. Herman Nothnagel, late Professor of Special Pathology and Therapy, University of Vienna. Edited with additions by H. D. Rolleston, M. A., F. R. C. P., London, second edition, thoroughly revised. Authorized translation from the German under the editorial supervision of Alfred Stengel, M. D., of the University of Pennsylvania. Philadelphia and London, W. B. Saunders Company. 1907. \$5.00.

In our review of the first edition of this work, in the CLINIC of 1904, we called it an invaluable thesaurus on the diseases of the intestines and the peritoneum. This second edition is augmented by 29 pages, and some alterations in the substance of the book were made for the better. Otherwise the book is both a monument to the rare

scholarship of the author and a useful manual on the intestinal and peritoneal diseases.

terest, and of remarkable literary style. The Neale Publishing Company, New York. Price \$1.50.

#### SANTEE'S "ANATOMY OF THE BRAIN"

Anatomy of the Brain and Spinal Cord, with Special Reference to Mechanism and Function, for Students and Practitioners. By H. E. Santee, M. D., Ph. D., of the Medical Department of the University of Illinois. Fourth edition, revised and enlarged, profusely illustrated. Philadelphia, P. Blakiston's Son & Company, 1907. \$4.00.

A magnificent book containing the latest theories about the anatomy and physiology of the cerebrospinal system, besides the minutiae of its parts.

#### BRUCE'S "STUDIES IN BLACK AND WHITE"

Here is a story of the "Old South," written by our friend, Dr. Jerome Bruce of Sanford, Florida. The author paints an idyllic picture of life on the great plantations, before the war, a picture which is not only fascinating, but which is apparently true to life as he himself has seen it. Is there a touch of autobiography in it all? Certainly the story of the DeMars, of the chivalric sons and beautiful daughters of this noble Southern Huguenot stock, and of their friends and retainers, black and white, gives us an entrancing view of the patriarchal life of a period which has now passed away forever, and a new conception of the relation between master and slave. Reading this book, we can understand how our southern friends look back upon and glorify the old days, even though they would not try to bring them back.

We shall not try to tell the story of Doctor "Jack" DeMar, the hero of this story, nor follow him through his early manhood, his life comedies and tragedies, through war and peace and reconstruction. We shall leave that pleasant task to the reader, who we feel sure will enjoy it as much as we have. The book is of wonderful in-

#### KELLY'S "GYNECOLOGY AND ABDOMINAL SURGERY"

Gynecology and Abdominal Surgery. Edited by Howard A. Kelly, M. D., F. R. C. S. (Hon. Edin.) of Johns Hopkins University, Baltimore, and Charles P. Noble, M. D., of the Woman's Medical College, Philadelphia. Fully illustrated. Vol. I. Philadelphia and London. W. B. Saunders Company. 1907. \$8.00.

In the present irrepressible tendency to differentiate specialism in medical work, there is thought to be danger that the gynecologist may not sufficiently engross his mind with other parts of the body beside what belongs exclusively to gynecology, and the general surgeon may also not sufficiently familiarize himself with gynecological work. To obviate this danger is the object of the volume now before us and of one or two more to come. At the same time the strictly medical part of gynecology is also treated quite fully so that the specialist may be furnished perfectly for every good work in his line. The equipment and illustrations of this volume deserve special laudation.

#### REGISTER'S "FEVER NURSING"

Practical Fever Nursing. By Edward C. Register, M. D., Professor of the Practice of Medicine in the North Carolina Medical College. Illustrated. Philadelphia and London. W. B. Saunders Company, 1907. \$2.50.

It used to be said, and might still well be said, that a fever patient who had the choice of having either a physician or a nurse to attend him would stand a better chance of recovery if he took the nurse. But "*Tempora mutantur et nos mutamur in illis*," and the nurse must now know more than of old in order to be an efficient help to the attending physician or be efficiently self-initiative in an emergency during his ab-

sence. For this purpose Prof. Register's more than usually extensive book will be found to be the efficient manual. Efficiency is to be attained by specialism after obtaining a general knowledge, and modern nursing has to follow the same road, and this book is an excellent guide.

#### KERLEY'S "DISEASES OF CHILDREN"

Treatment of the Diseases of Children. By Charles Gilmore Kerley, M. D., of the New York Polyclinic Medical School. Fully illustrated. Philadelphia. W. B. Saunders Company, 1907. \$6.50.

Complaint has been made, not wholly from a proclivity to fault finding, that many medical manuals and textbooks are largely compilations, of copied matter, classic, to be sure, but little that was not known before by those who keep up with medical literature. To forestall this censure the author of the book before us assures us that "the means and suggestions herein are not drawn from the literature but from experience based upon a somewhat extensive application of the principles evolved by the author in private and hospital practice."

This is the best reason a book can have for its existence. The book contains 554 pages of text, 17 pages of a list of drugs and dosage for internal and external medicines for children of six to eighteen months and three to five years old, and an index of 34 pages. This is an excellent arrangement for such a really practical book.

#### WHARTON'S "THE FRUIT OF THE TREE"

The problem around which the plot in this story revolves is one which has been much discussed by physicians—that of euthanasia: has the physician the right to take the life of a patient suffering from an incurable disease to shorten the period of otherwise inevitable pain? Mrs. Wharton has dealt with this problem in a truly wonderful way.

John Amherst, the manager of the mills at "Westmore," is a man of good family,

excellent education and high ideals. He rebels at the injustice done the employees of the mills by the too grasping owners; he longs to work out certain economic reforms to better conditions; but he meets with neither encouragement nor sympathy from those in charge. Finally he meets the owner herself, a young widow who has just come into possession of this property; they are attracted to each other, and he marries her. Unfortunately she does not sympathize with his ideals and he fails to understand the pleasure-loving spirit of his wife. Both become more and more unhappy, and as a culmination of misunderstandings they separate and the man goes abroad.

There has come into the lives of these two a young trained nurse, Justine Brent, an old friend of Mrs. Amherst, and an acquaintance of her husband, with whose work she sympathizes deeply. Immediately after Amherst has finally left her, Mrs. Amherst receives a fall from her horse, causing an injury to her spine. It soon appears that the possibility for recovery is very remote; one physician only, a young man, Wyant, holds out hope. He sees in this case the chance he has sought to achieve a reputation, and in a truly wonderful way he battles for Bessie Amherst's life. Justine is convinced that it is all in vain; she sees the life of her charge slowly slipping away, but far too slowly, since every effort to prolong it serves only to prolong and intensify the awful agony of the sufferer. She becomes obsessed by the idea that it is her duty to relieve Bessie from her suffering. She seeks light from the great attending surgeon, then from a clergyman, goes over each argument again and again, but finally yields to the constant wails of the sufferer and gives the pain-relieving overdose of morphine.

Amherst finally returns, and after a time he and Justine marry and are happy. Now the serpent enters their Eden in the person of Wyant, now a ruined, disheartened man, a victim of the morphine habit. He has discovered Justine's secret and uses it to blackmail her. An interesting situation is

created, giving ample opportunity for the display of the novelist's remarkable powers of character analysis, and rounding out a strong story—the denouement of which we shall not try to tell.

From a literary standpoint this book is a masterpiece. The plot is well mapped out and the story admirably told. The strength of character delineation, of analysis of motives, has something which is distinctly masculine in character. There is little of the softness, the tenderness of the woman even in the love-making passages. Justine justifies herself for taking the life of her friend, and is convinced that she did right: euthanasia apparently has the author's approval—and to this extent the book must be condemned, as bearing the stamp of casuistry. But it is interesting, intensely interesting, and every physician will enjoy reading it.

#### SWEENEY'S "ANIMAL THERAPY AND IMMUNITY"

Animal Therapy and Immunity in the Treatment of Tuberculosis. By Dr. Gilliford B. Sweeney, Pittsburg, Pa.

This is a pamphlet of 36 pages, giving a very serviceable resumé of the subject, which we would urge upon every reader who has a tubercular patient under treatment to read through. The price is not stated, but no doubt it can be had from the author gratis, to whom thanks are due for it.

#### HORTON'S SYSTEM OF MEDICAL BOOKKEEPING

To the average physician the accurate keeping of his accounts, with the minimum of labor and the maximum of convenience, is of the utmost importance. There are many "visiting lists" and bookkeeping "systems" on the market, many of them excellent, but few equal that devised by Dr. Alexander F. Horton, 944 March Ave., Brooklyn, N. Y. His "perpetual pocket record sheet" has the advantages of being light, thin, carried with or without a wallet,

easily consulted without turning leaves, always clean, abundance of room, posted as often as filled and then filed. The price for thirty patients a week is \$1.00. Larger ones at proportionately higher prices. A fine leather wallet, with pocket, 50 cents extra.

Naturally accompanying this is the "physicians' perpetual single entry day-book and ledger," which seems to be a model of convenience. It provided for 1,400 accounts and 1,600 entries. The price is \$6.

#### VAN HARLINGEN'S "DISEASES OF THE SKIN"

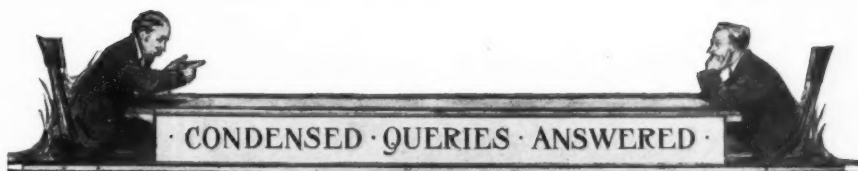
Diseases of the Skin. By Arthur Van Harlingen, Ph. B. (Yale), M. D., Emeritus Professor of Dermatology in the Philadelphia Polyclinic. Fourth edition, revised and rearranged, with 102 illustrations. P. Blakiston's Sons & Co., Philadelphia, 1907. Price \$3.00.

This book gives us in a condensed and thoroughly practical form the latest development of dermatological knowledge. The dermatoses are treated under the following classes: Hyperemia; inflammations; hemorrhages; hypertrophies; atrophies; new growths; neuroses; diseases of the appendages, such as the nails, hair, sebaceous and sweat-glands; and parasitic, vegetable and animal affections. We think that the physician will find more real help in this volume than in many of those of higher price which enter more extensively into the subject. Quite properly, from the standpoint of the general practitioner, the theoretical is subordinated to the practical. Details concerning treatment are quite full.

#### DREW'S "INVERTEBRATE ZOOLOGY"

A Laboratory Manual, prepared by Prof. G. A. Drew and associates in the Marine Biological Station at Wood's Holl, Mass. The amount of information here given is far beyond what we meet in general zoologies. Published by W. B. Saunders Company, Philadelphia and London, 1907. \$1.25.





#### PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

### QUERIES

QUERY 5244:—"Facial Stain Following Erysipelas." A. R. P., Illinois, says: "In treating a case of facial erysipelas I followed my usual custom of surrounding the affected area with a coat of pure carbolic acid neutralized with alcohol. Then I used carbenzol instead of 25-percent ichthyol, as I had been used to doing. There is now a dark stain outside of the area which was affected by erysipelas. It has been there now four weeks and gets no better. I have a very indignant female on my hands. What can I do to get rid of that stain?"

We note with interest the peculiar conditions reported. As you are aware we have recommended the application of carbolic acid in erysipelas for a long time and invariably instruct that the phenol shall be neutralized by the application of alcohol within one minute. Carbenzol has been used in these cases for the last year or two and never before have we heard of a stain following the treatment. Some peculiar combination of circumstances must have prevailed in this particular instance. Does the stain correspond to the edge of dressing applied and how deep is the discoloration? No substance will produce a change of pigment color from local application only, owing to the depth of the pigment cells. It is possible that you did not completely neutralize the carbolic acid, which was probably applied not only *on* the erysipelous area but *about* it. Carbenzol was then applied to the affected part only. This prevented the full action of the carbolic

acid on the affected area. The outer portion did not receive carbenzol and the action of air upon the carbolic acid outside the dressing caused discoloration. You have, then, a carbolic acid stain which should disappear in another week or two. Let us know how things turn out.

QUERY 5245—"Frontal Headache." H. H. F., South Dakota, asks for advice in the case of a young married woman, healthy, good weight (but not too fat) who has occasional attacks of very severe headache. Head feels very full, ears seem as though they would burst; the face is flushed sometimes and other times pale. Atropine, nitroglycerin and the various acetanilid preparations and combinations do not help. The bowels are all right, also the urine. The tongue is not coated.

We wish we were able to name offhand the "best remedy" for a severe frontal headache in a full-blooded young woman. You do not say when the attacks occur. You do not give us the slightest idea as to pelvic or ocular conditions. The headache may be due solely to retroversion or some other malposition of the uterus. It may be an ocular-reflex headache. In order to give the right remedy for the condition present it is absolutely essential that we understand the physical conditions existing. Headaches, as you know, are sometimes the most puzzling maladies to treat. The acetanilid preparations should be the last things to think of. Make a careful and full physical examination, noting especially the character

of pulse, reflexes, condition of nose, throat and ear. Then pay attention to the pelvis. Has this woman had any children? Is she hysterical? How about digestion? In this connection let us urge you to make a special investigation as to the size of this lady's corsets. This is not a joke by any means. We have found a good many of these so-called congestive headaches due entirely to tight lacing, which proves, as you know, more injurious at certain times.

In congestive headaches a few doses of gelsemin alternated with minute doses of veratrine often prove remedial. Dissolve two granules of veratrine in six teaspoonfuls of water and have her take a teaspoonful every fifteen minutes, substituting one granule of gelsemin for each third dose. Invariably institute "clean up" procedures, giving calomel and iridin one granule. euonymin, gr. 1-6, half-hourly for six doses, and two hours after the last dose give a saline laxative—preferably in *hot* water. If these measures do not prove efficacious try atropine valerianate, one granule, repeating the dose in an hour, or the cannabin and atropine compound. If you feel disposed to make a very careful examination of the patient and report your findings we shall be pleased to suggest more definitely.

QUERY 5246.—"Wanted: A Remedy for 'Squeaky Joints.'" J. C. D., Wisconsin, asks: "Is there any medicine you can recommend for a dry, squeaky condition of the joints in a man forty-six years old, with no specific disease, no rheumatism, no kidney trouble, who seems to be healthy in every way except this dry condition of the joints? No indication of arthritis deformans."

We are absolutely unable to prescribe intelligently for the symptom you describe without having a more thorough understanding of physical condition. What is the prior history? What nutritional condition prevails? Is the man very spare, and has he been exposed constantly to atmospheric changes? Is there any lack of motility? How are the reflexes? Any muscular wasting? Go over the man care-

fully, Doctor, report results and send a brief clinical picture with a specimen of urine. In the meantime we suggest that you institute passive motion and order inunctions of lanolin, coco-nut oil and vaseline, equal parts. You cannot do more than this until you are familiar with the abnormal conditions which may cause the "squeaking" described.

QUERY 5247.—"Extensive Lesion Involving Anus, Perineum and Penis of Infant," L. W. M., Tennessee, has a patient, a little male child less than one year old. About six months ago the mother died (when it was about two months old) and it was raised on the bottle alone. About six months ago the "little cord, or seam, extending from the anus to the scrotal sac" seemed to enlarge and became red and inflamed, after which there appeared a sore on the side of the anus which has persisted ever since. When treated with antiseptics, it would become hard and crack open, then spread larger, and this continued up the entire cord to the penis, and now the penis is all bent out of shape and appears also to be inflamed and bent on itself. The doctor believes it to be eczema. The sore now seems to be spreading to both sides of the anus, and when the bowels move pus appears to discharge along with the feces. There is also a sore on the right hip, which has remained ever since. The child passes water all right, but walks only with great pain.

This is a serious case and it is impossible from the limited facts at our disposal to form an idea as to the character of infection or extent of tissues involved. It is quite evident that slowly and steadily the disorder is spreading and you will probably find an abscess exists which is emptying through a sinus into the rectum. What is the history? Any tubercular or syphilitic taint? We fear one of the two. This child should be given small doses of echinacea (gr. 1-3) and calcium sulphide (gr. 1-6) four times daily, and one triple arsenate tablet twice daily after meals. Cleanse the parts affected thoroughly with pure hydrogen peroxide

(wash out the lower bowel *first* with the same agent, 1 part, to glycerin, 1 part, and water, 6 parts), then, with plain warm water. Now insert into the bowel about half a teaspoonful of an ointment of vaseline, benzoated lard and carbenzol, equal parts. Apply carbenzol to the other affected areas, or the same ointment first, gradually reducing its other ingredients until only pure carbenzol remains. Explore carefully for an abscess which probably will be discovered. If there is a suspicion of lues, place the child on the antisyphilitic formula and calx iodata.

QUERY 5248.—“Cicutine.—Copper Arsenite.” J. E. H., Kansas, asks: “Is there danger from the continued use of cicutine, and in what dosage can it safely be employed? I have a few cases of obstinate nervous dyspepsia in which I am using cicutine, gr. 1-134. My literature is limited on this drug and I should be pleased if you can set me right. How long and to what extent can I push copper arsenite? How do you treat stomach disorders in nervous women?”

Cicutine is preeminently an emergency remedy and can rarely be used continuously for a long time with safety.

Copper arsenite administered in minute doses may be used every three or four hours for several days, but we certainly would not suggest its use *continuously*.

As for stomach disorders of nervous women, treat conditions present, not a complex clinical picture, using, wherever it is possible, the single remedy to counteract a single pathological condition. Most nervous women need elimination, improved nutrition and restoration of circulatory and nerve equilibrium. The uterine sedative and nervine is an excellent formula in many cases; nervine (Vaugh) meets the conditions in other patients; scutellarin, cyripedin, zinc phosphide and the digestive formulae will apply elsewhere, and in *every* case eliminants are indicated. We should push cicutine (gr. 1-134) where indicated until relief or the physiological action of drug became evident. We cannot, how-

ever, conceive conditions calling for the constant exhibition of the drug. The positive therapist will take pains to remove the conditions setting up the nerve irritability demanding the exhibition of cicutine.

—  
QUERY 5249.—“Maceration of Skin on Living Fetus.” A. W. B. of Oregon reports a most interesting case, as follows, and asks an explanation: “The case which I am reporting is, to me, so peculiar that I detail it to the ‘family,’ hoping to elicit some light on the obscurity around me. In seventeen years of practice I have not seen a parallel case. On October 9, 1907, I was called to attend a strong, robust woman in her seventh confinement. I found her well advanced in labor, the presentation L. O. A., but no sign of a bag of waters, and she asserted that no water had been discharged. At 6 a. m., two hours after I arrived, she was delivered of a sturdy ten-pound boy, lusty and boisterous. The cord was wound quite tightly about the neck but was released without difficulty. There was almost total absence of vernix, notwithstanding the fact that there was scarcely a trace of liquor amnii. The child was turned over to the nurse, who presently called my attention to the peculiar appearance of the skin on its hands, and upon investigation I found that the integument was exfoliating, both on hands and feet, as though it might have been subject to a scalding process. It had the general appearance of the shedding skin from a macerated fetus that had been dead for some days. The mother had had a threatened miscarriage at the seventh month. Had quite severe pain for two days, since which time she had not felt very well but had been able to attend to her household duties. Now what I would like to know is, What caused this condition of the child?”

As you are aware, Doctor, the various diseases of the fetus and the changes which take place during intrauterine life are far from being thoroughly understood. The normal process of development we know to a certain extent, but if anything abnormal

does occur we are unable to offer an explanation. It is very rare indeed for exfoliation to occur in a living child, and in this particular instance we are compelled to regard the accident which occurred at the seventh month as the *causa causans*. Our knowledge of embryology enables us to state that the most active stage in the formation of the outer layer, or epidermis, is between the sixth and eighth month, vernix caseosa being first recognizable at the end of the sixth, covering the entire surface of the body in the eighth. This, as you know, serves to protect the epidermis of the fetus from maceration in the amniotic fluid. Now, when we recall the threatened miscarriage at the seventh month, we can readily understand that some derangement occurred preventing the formation of vernix caseosa. The amniotic fluid increases in quantity until the sixth or seventh month, when it begins to diminish. As you know, it supplies the fetal tissues with water and portions of it are swallowed. We shall have to consider, then, that abnormal conditions prevailed from the seventh month, causing, first, disappearance of vernix caseosa and, secondly, absorption of liquor amnii; hence the dry birth, the absence of vernix caseosa and exfoliation of partly macerated skin. No other explanation occurs to us and we sincerely hope that readers of THE CLINIC will study the matter and present any ideas which may occur to them. The mere fact that a ten-pound child was produced in this case is not extraordinary, for, as we know, the weight of the child increases as pregnancies multiply, and the seventh child of a robust woman—especially if a boy—would be more likely to weigh ten pounds than seven. The winding of the cord about the neck would be explained by the absence of amniotic fluid. Of course some fluid probably remained in the uterus and was voided unknown to the mother in the earlier stage of delivery.

—  
 QUERY 5250: — "Epilepsy Caused by Phimosis in Aged Man?" H. M. B. of South Dakota reports case of epilepsy in an old man of eighty-eight, who is quite

robust, but has had what they call epileptic fits for just fourteen years. While in one of these attacks he had a fall and hurt his thigh and has been in bed most of the time. While assisting in "drawing his water" the doctor discovered that his foreskin was completely filled and bulging with foul-smelling urinary deposits. It was evident he had never drawn the foreskin back or cleaned the parts for years. The doctor reasons that being a very strong man with well-preserved powers he probably kept the parts clean up to fourteen years ago by regular intercourse, and after ceasing to do so, the excreta began to collect and the absorption of decomposition-products are causing the fits. The man does not always fall when seized; sometimes, by holding on to him he can be kept on his feet until he "comes out of" the fit, and he can keep on walking as if well. The attacks last, when he falls, about ten or fifteen minutes. He does not foam at the mouth nor are the convulsions as severe as in some cases of genuine incurable grand mal he has encountered. He keeps his feet, if he is sitting down, going up and down in a churning motion. His eyes have a wild look but do not bulge. He clenches anything with a very strong grip with his hands and is entirely unconscious of what is happening; does not remember anything afterwards about it. He has no "aura" and does not know that he had a fit. The doctor is of the opinion that this patient ought to be circumcised at once and then put on our treatment for epilepsy, and closes by saying: "I understand that you have a new anesthetic containing morphine, hyoscine and cactin, which is splendid for minor operations. Will it be all right to use it on this case for circumcision, or would cocaine be better?"

The doctor probably has struck the nail on the head; reflex irritation and general toxemia, from absorption by the glans of poisons generated unquestionably might cause these seizures. Circumcision is such a very short operation that it hardly seems necessary to use general anesthesia, but one might, in such an old patient as this,

give one H-M-C tablet, repeating the dose two hours later with a full-strength or half-strength tablet, gauging the dose by the condition of the patient, and then inject a cocaine solution (never adding brucine or strychnine) and perform the operation. A one-percent injection of cocaine or one of two-percent of stovain will, if injected thoroughly between the layers of the foreskin, produce perfect anesthesia. A rubber band should be drawn around the base of the organ to prevent absorption. Do a good, low circumcision in this case. Then place the patient upon the epilepsy treatment outlined by Dr. Candler, using small doses and watch results. We should not be surprised if the patient never had another seizure.

—  
QUERY 5251.—“Anuria Following the Use of H-M-C.” A. S. T. of Ontario writes: “On September 18, 1907, R. F. millman, aged 40, was caught in a belt and carried around a shaft; when released, his right arm was found to be severely injured. Was seen about two hours after accident and given one full-strength tablet of H-M-C. A second dose was given in fifteen minutes. Patient went to sleep sitting in a chair. Two fractures of the right humerus and one of the right radius near wrist were found: all simple, and one of the middle of the right ulnar with protrusion of the bone. The bones were placed in position and secured with splints. The patient slept from 4:30 p. m. to 11 p. m. Had no recollection of the limb being set. Between 11 p. m. and noon of next day he took, by mouth, three more of the full-strength tablets. The only unpleasant symptom was anuria of thirty hours’ duration. Renal functions returned without anything being done.

“September 19, D.A., farmer, was struck on the left buttock with a heavy log, and the sciatic nerve was severely injured. Pain was most severe. I injected one full-strength hyoscine-morphine-cactin tablet, and a second in one hour, before pain was sufficiently controlled to permit of examination. There resulted anuria of twenty-hours’ duration

but with natural recovery. In both of the above cases the amount of urine excreted after thirty and twenty hours, respectively, was no greater in amount than what might be expected to be voided after an eight- or nine-hours’ interval since previous urination, and apparently no ill effects whatever were experienced in either case. More mature consideration seems to warrant one waiting until some subjective symptoms are complained of by the patient before attempting catheterization. What do you think?”

We quite agree that catheterization is uncalled for where suspension of renal function, temporarily follows the use of hyoscine-morphine-cactin. As the doctor says, the amount of urine passed after thirty hours’ anuria is not greater than under ordinary circumstances, would be voided after eight hours. The catheter should never be used if it is possible to avoid doing so—and where the renal function is in abeyance temporarily the bladder may safely be left uninvaded.

—  
QUERY 5252.—“A Case of Inoperable Cancer.” C. B. H., Mississippi, has a patient who is suffering from a cancerous growth of the axilla. She has had the glands as well as the breast removed and now the parts are ulcerating, and nothing can be done but relieve pain. H-M-C (half a tablet) relieves at once. “I wish you would advise me how often and how long may she take them. Morphine nauseates her for several days and so does any other form of opium. Hyoscine-morphine-cactin does not, and it has a beautiful effect. Can I give one or two half tablets a day for months with no danger from hyoscine? It is the only thing I have found that relieves her, and hyoscine-morphine-cactin is generally ahead of anything I have tried.”

In a case of this kind the doctor will have to give hyoscine-morphine-cactin as required. “Habit” here does not matter. Keep the bowels thoroughly open with calomel, podophyllin and bilein given at night and saline laxatives every morning. Give just enough H-M-C at three- and four-hour intervals to



maintain a drowsy euthanasia. One can certainly give two tablets—or more—a day for months, supposing this unfortunate woman should live that long. By the way, a trial of carbenzol as a local application is suggested. In other cases this preparation has absolutely controlled the stench, limited discharge, and to a very great extent stopped pain. A little orthoform may be added or dusted on the parts first with advantage.

—  
 QUERY 5253.—“A Really Remarkable Theory.” C. J. B. of Pennsylvania, in a recent communication says: “October 8 was an anniversary for me, marking a year of very successful use of the alkaloids. That the alkaloids have served me well indeed goes without saying, for though I have had all kinds of diseases to treat in that time, yet I have not had one single death, and while I had some narrow escapes, the alkaloids never failed to do the work. Now I am more than ever a firm believer in the active principles and also in the ‘clean-out, clean-up and keep-clean practice.’ I should like to ask any of the ‘family’ if this rule could have been more forcibly or beautifully applied than in the case cited below.

“Adult female, suffering from a typical case of scarlet-fever, also from a marked constipation at the height of the fever: in fact, there had been no bowel movement for several days. As a result there was very frequent vomiting, in fact everything taken would in a very short time be rejected. The mother now asked the attending physician if it would not be well to give the patient a physic. He replied: ‘O my, no! If I were to do that and it should pass down it would poison the whole system.’ Now, can any one see the minutest speck of ‘scientific medicine’ in this? If so, I should be glad to hear where? Is it any wonder we have so many cemetery shafts that shine out to the credit of such ‘scientific’ men? Would it not have been a million times better if this physician had possessed just a little ‘horse sense,’ and gotten rid of the poisonous mass that each day was more and more poisoning the already overwhelmed body? How it was to poison

the body as it was ‘passed out’ after a ‘physic’ was given, goes beyond my reasoning powers! If the patient recovers in such a case it certainly is not the result of appropriate (or I might say common-sense) treatment, but is due solely to the inherent resistance of the body. What do you think about it?”

Let us congratulate you heartily upon your success, Doctor! May each year see you high up the ladder, one step closer to the pinnacle of success. The man who uses the active principles intelligently, treating pathological conditions present with the indicated remedy in small repeated doses, *must* succeed. Still, it is not every man who is able to go through a year’s active practice without a single death. The results show that you have diagnosed closely and given the right remedy at the right time in the right way. The absurd remark of the attending physician in the case of scarlet-fever deserves to be perpetuated. That a modern practitioner should show such woful ignorance almost passes belief, and proves (what we have so often claimed) that it is still necessary to teach and *re-teach* first principles.

—  
 QUERY 5254.—“Incontinence of Urine.” E. S. W., Michigan, writes: “I should like your valuable assistance in a case of incontinence of urine in a young lady 24 years of age, who has been troubled since birth. She is a stenographer, 5 feet 8 inches in height, weighs 147 pounds, has light hair, face pale, is very nervous, must be on the move constantly; pupils are dilated, good appetite, face flushes at times, bowels act once or twice a day. Menstrual period regular, lasting about seven days, quite profuse the second and third days, some pain during the first day. The uterus seems to be in a normal position but is somewhat sensitive; no leucorrhea. The sensitiveness I attributed to nervousness. The meatus urinarius is a little red and open, very sensitive. The clitoris adherent, hood very long, small fissure in the rectum, otherwise normal. Urine light-colored, specific gravity 1020, slightly acid;

there is no burning when urinating, but the desire to urinate varies from ten minutes to one hour; if near a closet, it is necessary to evacuate the bladder every ten minutes; or if she gets nervous or even thinks about urinating she will have to respond to that desire at once or the urine will involuntarily escape, and it does so several times a day. She always has to change the clothing at noon and at night. The amount of urine passed in twenty-four hours is three pints. She drinks quite often. As soon as she retires she is able to retain the urine without any discomfort until morning; and even in the daytime, if she lies down, she can retain the urine for hours; but the moment she is on her feet she must void the urine, and sometimes in the morning it will escape before she can reach the bath room, only a few feet distant. There is a great deal of pain in the back about the third sacral.

"On February 2 last I administered the H-M-C compound, and with about one dram of chloroform liberated the clitoris and amputated the hood; also gave the fissure proper attention; confined her to the bed one week. I gave arbutin, gr. 1, every two hours, with strychnine, gr. 1-50; also enough benzoate of lithium, gr. 1-6, to keep the urine neutral. All went well as long as she remained in bed. The fissure healed nicely. As soon as I permitted her to walk about the trouble returned. Then I used atropine, gr. 1-500 every hour until it produced dryness of the mouth, the pupils being already dilated. After taking the atropine for two days she was able to control the urine for one hour, and within one week could retain it five and six hours at a time. She now is taking gr. 1-250 twice a day. Since taking the atropine she is less nervous, the face is pink, she urinates twice in the forenoon and usually three times in the afternoon. In fact she is much improved in every respect. The question is, will atropine cure this case?"

In this case we fear the doctor will not be able to adhere to his plan of giving one remedy at a time. Innervation has to be

remedied and sphincter tone restored. At the same time there is a hysteroneurotic temperament to deal with. We should dilate the sphincter and thoroughly and apply to the meatus urinarius on a piece of gauze a good preparation of calendula officinalis. Calenduline, in our opinion, is one of the best preparations for inflammatory states of the mucosa. If a caruncle exists, remove it. Improve the patient's general tone by exhibiting for two weeks avenin, 6 granules, strychnine and phosphorus compound, one granule every four hours. Half an hour prior to meals exhibit hydrastin, gr. 1-6, collinsonin, gr. 1-3, cypripedin, gr. 1-6. If there is any circulatory inequality add cactin, gr. 1-67, to the avenin and strychnine formula. At night, on retiring, insert into the rectum a large catheter attached to a fountain syringe and have the bowel flushed with barely warm normal saline solution. Allow but little fluid for a few days and provide the patient with a two-ounce vial in which place eight atropine valerianate (gr. 1-250) and eight cantharidin granules. Water to fill. Order thirty drops every two hours. Assure her she will not want to urinate after twenty-four hours—except three times daily. There may be vesical disorder, but we doubt it; if this treatment does not control conditions the bladder will have to be examined with the cystoscope. Use the vibrator and cold salt sponge-baths. Faradism to the spine would also prove helpful.

QUERY 5255.—"Atropine and Dilated Pupils." F. M. L., Arkansas, inquires why the use of minute doses of atropine with aconitine in cases where the little ones have widely dilated pupils, rolling head and much restlessness controls the symptoms when nothing else will do it. The doctor was advised by a homeopathic physician to use belladonna. He tried atropine and, presto, "she did it." He says he has searched Waugh-Abbott's "Textbook of Alkaloidal Therapeutics" from page 66 (Therapeutics) to page 75, and not once does it say "atropine for dilated pupils." He wishes to learn more about this subject.

We note with interest your report on the effect of *minute* doses of atropine, when the pupil is dilated. There are two ways of looking at this matter. In the first place, the dilation of the pupil (occurring pathologically) is due to the absorption of a certain toxin, whose effect, in this respect, resembles that of atropine. The latter is one of the most powerful agents that we possess in the treatment of constipation when given in *very small* doses, the object being to paralyze inhibition. If given in larger doses it affects the muscular fibers of the intestines, paralyzing them and increasing constipation. Or you may take the homeopathic rule, which is, that exceedingly small doses of this (as of most other medicines) exercises a power directly contrary to that which they show in toxic doses. This is the well-known homeopathic "law" of "similars". While we do not consider it a *law*, it is undoubtedly true in many instances. Still we think the explanation is identical in both cases, and at the best is only conjectural. The main point is whether its action is uniform and may be predicted with certainty or whether it is accidental and uncertain, and to determine this a large number of observations must be made before we can form definite opinions.

QUERY 5256.—"Dosage of Papayotin." F. W. M., Kansas, wants to know whether he can obtain papayotin in granules larger than gr. 1-6. He says: "People kick on five or ten pills three times a day, even if they are small."

One grain of papayotin is considered an ordinary full dose, and in nine cases out of ten, two to three of the 1-6-grain granules prove sufficient. Notice the proportion in the compounds, such as the digestive, papayotin compound, etc. The writer, who uses papayotin in large quantities, rarely gives more than a half grain, and he gets results. To give a grain where a third would suffice is bad therapeutics. Hence the desirability of having the "*minimum* known-to-be-effective dose." It is very easy to give it in multiple, but less so to

give the indicated fraction when one has only the large dose at his disposal.

QUERY 5257.—"To Stop Thumb Sucking." A. T., Mississippi, asks what is the best way of stopping thumb sucking in a two-year-old child. There is nothing better to apply to the thumb than solid extract of aloes. No child will suck his thumb often who encounters this preparation upon it. Another excellent plan is to make a little ring with a small piece of wire which loops over the thumb, or a little tin cap tied on with tape, the tin being perforated like a nutmeg grater, rough edges outside. The child will not suck the rough tin long. However, a few days of bitter aloes and a properly repeated dose of "moral suasion" usually prove effective.

QUERY 5258.—"The Best Hypnotic for the Aged." O. W. H., Illinois, asks what hypnotic will be most satisfactory for constant use in the case of a woman 89 years of age, who, though she suffers no pains, can not sleep at night without taking something? For years she has used a powder which had been prescribed for her for asthma. This is found to be modified Dover's powder with about half the strength of opium. It does not seem to satisfy her any longer. The doctor has in vain tried su'phonol and various other hypnotics, and has finally used the hyoscine, morphine and cactin combination, which does quite well.

Veronal is extremely useful, but probably you will find *passiflora incarnata* in full doses the best preparation in this case. Opiates are not desirable, but in properly selected cases hyoscine in some form, probably as combined above is unquestionably the preparation of choice, and, if you do not allow the patient to increase the quantity taken, and if you maintain elimination, this formula will prove thoroughly satisfactory. For the aged generally, however, *passiflora*, one to two drams in a little hot water, has proven one of the best of our somnificants.



**HEART TONING.**—The profession must learn to dissociate heart-toning and contraction of the arteries.

**DRUGLESS THERAPY.**—It seems impossible for the lay mind to disassociate the idea of a drugless therapeutics from that of a doctorless patient.

**PNEUMONIA** is most often due to the intestinal absorption, which acts by lowering tone and allowing lung congestion and inflammation.—*Earp—Medical Monitor.*

**CACTUS.**—In protracted fevers, with much heart weakness, cactus will not only strengthen the heart, but will materially reduce the temperature.—*Medical Summary.*

**ETHER** is more dangerous for old people and young children than it is for young adults, but it is not so dangerous for any class as chloroform.—*S. A. Brown, Northwestern Lancet.*

**THE CANTEEN.**—Daniel of the *Texas Medical Journal* says that instead of restoring the canteen we had better abolish the low whisky dives which spring up around army posts. A good idea.

**PREGNANCY.**—In *The American Journal of Obstetrics* for November, R. R. Huggins has a very valuable paper on "The Toxemias of Pregnancy," which we would reproduce if we had the space.

**SCUTELLARIA** (scutellarin) is valuable for nervous patients, especially females passing through the climacteric. It creates appetite, builds up the patient and quiets the nerve centers.—*Jour. Ther. & Diet.*

**GOOD THING.**—You are missing a good deal if you do not get Eccles' letters in *The Medical Fortnightly*. The last one is entitled the "Island of Spicy Breezes," and deals with his recent visit to Ceylon.

**PULSATILLA** (anemonin): Indigestion, with sensation of a foreign body lodged beneath the sternum; also melancholia with fear of impending danger; patients feel better in open air.—*Jour. of Therapeutics and Dietetics.*

**COLIC.**—Minute doses of colocynth (colocynthin) will cure colicky pains in the abdomen and pelvis, which come on suddenly, causing the patient to

bend double, and are relieved by pressure.—*Journal of Therapeutics and Dietetics.*

**ANTIPHLOGISTINE.**—I know a good deal of antiphlogistine by experience in practice and approve of it. Furthermore, I would not prescribe the official imitation when the original and the perfect product is obtainable.—*Medical Consensus.*

**ALKALOMETRY.**—Along this line of progress, *alkalometry* represents the acme of advanced pharmacology; and I believe when once fully understood by both the profession and laity it will come into universal use.—*Schwartz, Cleveland Medical Journal.*

**CONCRETE RESULTS.**—"Papa," asked the eminent surgeon's petted daughter, "what is the appendix vermiformis good for, anyway?" "My dear," answered the eminent surgeon, "the last one I removed was good for that sealskin sack you are wearing."—*Phys. Drug News.*

**RAPID OPERATING.**—During the middle of the last century the fine idea of rapid operating started to grow into an imposing feature of the landscape; but it was blown down before reaching its prime, by anesthesia and by antiseptics.—*Robert T. Morris—American Journal of Obstetrics.*

**SURGERY AND MEDICINE.**—During the past thirty or forty years we forged far ahead of the internists, for our science was better than theirs. Now they are quietly slipping up to us, for their science is getting to be more comprehensive than ours.—*Morris, American Journal of Obstetrics.*

**HYSTERIA AND NEURASTHENIA.**—Mettler distinguishes sharply between hysteria and neurasthenia. The former is a psychophysiologic functional defect, the latter a neurohistologic anatomic defect. One shows phsyic changeability, the other elemental weakness or failure.—*Medical Record.*

**ANTITOXIN.**—The Memorial Institute for Infectious diseases, of Chicago, has now extended its list of stations until two hundred druggists carry their antitoxin in stock. This is supplied in the ordinary and also the concentrated form, and is sold to patients at the rate of three thousand units for three dollars.

**SUCCESS.**—The physician's success or failure in a given case depends on his ability to prescribe the

right drug at the right moment. From the moment the prescription leaves his hands he has no control over the quality or strength of the drug he has prescribed—the tool of his profession.—F. Clift, *Utah Med. Journal*.

**WAR! WAR!**—War has broken out between druggists and physicians in Augusta, Ga. The physicians demand the cessation of counter-prescribing; the druggists tell the physicians to mind their own business! That seems to be exactly what the physicians are doing in making this demand, therefore they persist in it.

**"ALKALOIDAL ALLOPATHY"** contains many things that are really valuable. We find too great a tendency to violent depletion by catharsis. When it comes to giving one-sixth grain of podophyllin frequently enough to provoke active catharsis in scarlatina, it is neither a safe nor a scientific proceeding.—F. H. Williams, *American Medical Journal*.

**PERFORATION.**—We note in an exchange an extensive paper on the treatment of perforation in typhoid fever. Hundreds of thousand of cases of typhoid have been treated, by our method of clearing out the bowels and disinfecting them with the sulphocarbolates. Does anybody know of a case of perforation that has followed when that treatment has been effectually carried out? Kindly inform us if you do.

**WHERE'S OUR CUP?**—Dr. Henry Beates, of Philadelphia, having saved four people from drowning at Atlantic City, last summer, the State Medical Society presented him a beautiful silver loving cup. We believe we have saved a whole lot of people, not from drowning but from sickness, preventing their deaths; and we are awaiting the loving cup. Nevertheless we congratulate Beates on the appreciation shown by his colleagues.

**PROMOTION.**—Dr. G. A. Denman, of Tuscola, Ill., has been tendered a chair in the faculty of the Ohio Medical College of Toledo. Dr. Denman has been four years in Tuscola, during which time his practice has grown to such an extent that he is compelled to leave, the demand being beyond his strength to fulfill. This will leave a big hole in the Tuscola profession, where Dr. Denman's modern methods have been appreciated by the people.

**CHOKED DISC.**—J. B. Thomas in the *Long Island Medical Jour.* describes an interesting case of "Choked Disc, Probably Due to Brain Tumor." After three weeks' treatment with potassium iodide in large doses without improvement, he added daily hypodermics of pilocarpine, from grain 1-12 to grain 1-4, the purpose being to increase the eliminative and absorbent action of the mercury and iodide given by the mouth at the same time. After three weeks of this treatment the patient was discharged considerably improved.

**TRYPSIN AND CANCER.**—The *Cleveland Medical Journal* quotes from a report on trypsin, made in the Cancer Research Laboratories of the London Middlesex Hospital. The final clause reads as

follows: "From these observations we conclude that the course of cancer, considered both as a disease and as a morbid process, is unaltered by the administration of trypsin and amylopsin." Similar results are being obtained in this country. Although the English reports are unfavorable German writers seem to think highly of the treatment.

**ARE THERE OTHERS?**—We have in Milwaukee a leading druggist who has been a notorious offender in the matter of foisting sophisticated and fake remedies on a gullible public. Some months since, when a manufacturer of fake remedies from a distant state came to this city to exploit his nostrums, this same druggist became a partner in an open and palpable fraud. When approached by a committee of physicians who protested against this fraud he blandly answered: "The medical profession can go to hell. I get my money from other sources."—Harrington, *Milwaukee Medical Journal*.

**TOXEMIA OF PREGNANCY.**—More significant are persistent vomiting and salivation, not neurotic, resisting treatment; air hunger, mental disturbance, edema of face and ankles, jaundice and discolor of skin, epigastric pain and tenderness over the liver, with amaurosis, suppression of urine, convulsions and coma. With the development of symptoms pointing to autointoxication, stimulation of the eliminating functions of the skin, bowels and kidneys should be instituted, the patient put upon a milk diet, and intestinal antiseptics exhibited.—E. H. Smith, *Utah Med. Journal*.

**APPENDICITIS.**—Kuhn (*Detroit Medical Journal*), says that before operating for appendicitis, if the pulse is weak give strychnine, gr. 1-30 hypodermically, repeated in three or four hours if necessary. The caution is just, but the remedy chosen is not the best, because strychnine accentuates the sensibility of the cutaneous sensory nerve ends, and this necessitates more anesthetic than would otherwise be required. Digitalin, sparteine, or strophanthin would be preferable for this reason, while cactin seems actually to enhance the effect of the anesthetic.

**CEREBROSPINAL MENINGITIS.**—The *Military Surgeon* for July and August contains an interesting account of an epidemic of cerebrospinal meningitis occurring at the Naval Training Station, Newport, R. I., in 1905 and 6. Twenty-two cases are described of which six recovered. (Personally we have had no opportunity to make trial of our suggestion—but from a study of gelseminine and cicutine hydrobromate we feel justified in suggesting these two agents as promising to prove useful in this malady. The H-M-C tablets also should be better than morphine alone as a sedative.—ED.)

**TANSY POISONING.**—In the *Medical Sentinel*, R. J. Smith reports an interesting case of poisoning by oil of tansy. One-half ounce had been taken. Apomorphine was administered hypodermically until complete relaxation; saline solution given in large quantities; saline laxative was given in tablespoonful doses every three hours. After



eight hours' restlessness a hypodermic of the H-M-C (Abbott), half-strength, was given, with satisfactory results. The patient had no labor pains; the case went on to full term with a fully-developed child. The prompt removal of the tansy by apomorphine prevented, no doubt, any bad effect on the kidneys or uterus. A few whiffs of chloroform were given to control convulsions while awaiting the action of the apomorphine. The patient had three convulsions.

**SCOPOLAMINE.**—Parlavecchio reports 200 operations under scopolamine narcosis. The full dose used was 3 1-2 milligrams, in three injections, though two or even one sometimes sufficed. This drug, he says, should not be used for children under ten years, but is well tolerated by the aged, and by those with nephritis, arteriosclerosis and other conditions in which ether is contraindicated. Vomiting is avoided, and persons of small vitality may be operated upon. It is convenient for operating in the lateral position, or on the back, and is especially valuable in operations on the head and neck.—*La Riforma Med.*

**ANNUAL INDEX.**—We wish to call attention once more to the fact that the annual index is not enclosed with the journal, as has usually been our custom. It has, however, been prepared, and this year is unusually complete. A copy may be had by any reader of the journal for the asking. We only ask that you advise us at once if you desire it.

Again we would emphasize the value of the bound volumes of CLINICAL MEDICINE. These not only make a handsome addition to any library, but the doctor who has preserved several years of the magazine and has them in shape for ready reference, has a medical cyclopedia which takes a back seat to none of them.

**THE NURSING PROBLEM.**—*The National Hospital Record* suggests a solution of the nurses' problem—capable nursing for the small wage earner. The plan comprises a National Visiting Nurse Association, with auxiliary societies, each center to be also a training school for assistant nurses, who shall answer calls and attend patients under the supervision of the graduate nurse, the fees to be fixed by the society. This plan has been in successful operation in Albany, N. Y., for several years. Since at least half the people of this richest of lands live on an income less than \$500 a year it is obvious that provision must be made for a service costing less than \$25 a week and boarding.

**APLOPAPPUS IN DYSENTERY.**—In *The Texas Courier Record of Medicine*, Dr. Kibbie describes an interesting case of amebic dysentery. This case had resisted well-directed treatment. Patient was operated upon by Dr. Tuttle and appendicostomy performed and for two months saline and silver irrigations were made through the appendix. No special benefit having resulted, Dr. Kibbie placed the patient upon a fluid extract of aplopappus baylahuen. This was given by the mouth and also injected through the appendical fistula. After sixty days all symptoms of the disease had vanished and the amebæ could no longer be de-

tected in the stools. This is an important observation and the therapeutic idea deserves to be put to repeated tests. If the correctness of the observation is established, he will have added an important specific to our list.

**IODIN AND PARATHYROID.**—In *The Johns Hopkins Hospital Bulletin* for September, Espes and Cecil contribute a brief but interesting article on the relation of iodine to the parathyroids. Their conclusions are, first: that iodine as a constituent of the parathyroids, may generally speaking be neglected; second, that if present at all, iodine occurs in such minute quantities as to be of no functional significance; third, they failed to find chemical ground for the hypothesis of the thyroid system of organs. Compare these exceedingly careful statements, going not one hair's breadth beyond the evidence, with certain wild and intemperant utterances of other people who proceed to draw deductions which are not warranted by their experiments, on matters concerning which they are not qualified to give opinions. It is a wise man who limits his utterances to what he knows; as soon as he commences to say what he thinks he knows, he gets into trouble.

**PILOCARPINE IN SYPHILIS.**—W. J. Robinson, after considerable experience with pilocarpine in the treatment of syphilis, reaches these conclusions:

1. Pilocarpine is a most remarkable glandular eliminant, and glandular elimination is one of the most important factors in the successful treatment of syphilis.

2. Pilocarpine is of value in all secondary manifestations of the disease.

3. There are many cases which become intolerant to the further use of mercury; the system seems supersaturated and continuing the mercury in such cases means injuring the patient. Discontinuing the mercury, giving pilocarpine in the interval, enables us to resume the former drug with excellent effect.

4. Pilocarpine should be prescribed alone, either in pills or solution, and should be given in doses of two to eight milligrams (1-32 to 1-8 gr.) two to three times a day.—*Medical Record.*

**DIET FOR THE AVERAGE MAN.**—Chittenden, who says we eat too much, offers the following as an average man's diet: For breakfast, one shredded wheat biscuit, one teacup cream, one German water roll, two one-inch cubes of butter, three-fourths cup of coffee, one lump of sugar; for lunch, one teacup chicken soup, one Parker House roll, two one-inch cubes of butter, one slice lean bacon, one small baked potato, one rice croquette, two ounces of maple syrup, one cup of tea, with one slice lemon, one lump of sugar; for dinner, one teacup cream of corn soup, one Parker House roll, one inch cube of butter, one small lamb chop broiled, one teacup of mashed potatoes, apple-celery-lettuce salad with mayonnaise dressing, one Boston cracker split, one half-inch cube American cheese, one-half teacup of bread pudding, one demi-tasse coffee, one lump of sugar. Such a dietary would make the grand total for the day 58.07 grains of proteid and 2,729 calories.—*Med. Times,*

**CAN A CHRISTIAN SCIENTIST SUFFER?**—The Texas Supreme Court set aside a judgment won by a Christian Scientist for sufferings experienced from her ejection from a street car. The court held that since she believed there was no such thing as suffering, she could not have suffered any. The logic of this decision appears unimpeachable.

**ECLAMPSIA.**—Rittenhouse (*Ill. Med. Bulletin*) attributes this malady to hyperemia of the Malpighian bodies, and looks for relief to contraction of the bloodvessels, making more room in these inelastic connective tissue capsules. For this he relies on digitalis, especially the fatfree tincture. He begins with ten drops every two hours, and gives whatever quantity the case requires. This excellent treatment is for the patient who presents dropsy and albuminuria. When convulsions have occurred it is obviously not indicated. Here he finds in veratrum a remedy equally satisfactory. He gives ten drops of the tincture every half hour until the pulse falls below 60; the result depending much upon the strength of the tincture employed. He pronounces it a powerful and dangerous weapon to handle, in the necessary doses. It is given hypodermically, diluted only with an alcoholic, as water causes precipitation and clogs the needle.

**THE NAVY.**—*The Medical Record* says that there are now 64 vacancies in the naval medical service. Congress is asked to render the positions more attractive. Meanwhile temporary appointments may be had, with the prospect of permanent positions after six months spent at the naval medical school. [The naval examinations have long enjoyed the reputation of being the severest tests to which a physician is put in the United States. The fact that so small a percentage of candidates pass is now, we believe, not due so much to the imperfections of the medical course as to the lack of inducements held out by the service. Neither the pay, the rank nor the prospects, are at all commensurate with those afforded by a civil career, to the men qualified to pass such examinations. The services require a \$10,000 man, and offer him less than \$2,000 a year; with a rank at the start which places him with youngsters, with whom association on equal terms is scarcely possible. Until these things are remedied the services will never be fully supplied with men of the quality they require.—ED.]

H. W. WILEY, in the *Mo. Cycl. of Pract. Med.*, presents a paper on "Pure Drugs" that we would like to reproduce entire if we had space. The following extracts will show the wisdom of sending for the journal containing this paper: "If a drug which is employed for therapeutic purposes does not have the qualities it is supposed to contain, the object of its use is necessarily lost." "At least 50,000 different kinds of drug products, proprietary and otherwise, are at present placed on the market in the U. S., only about 1500 described in the U. S. P. and N. F." "The great majority of the manufacturers are endeavoring to supply the trade with the best goods that science and care can produce." As one of the exceptions he mentions a dealer who to boom sales of elixir of valerian added morphine to his, and enjoyed an immense popularity, "the street lined with carriages bringing women

from far and near to procure the drug." One man compared the effort to secure strictly U. S. P. digitalis to "securing the left hind leg of a rabbit, killed by the light of the moon, in a graveyard, by a cross-eyed negro." He closes with a sensible plea for the physician doing his own prescribing.

**ECLAMPSIA.**—In the *Medical Summary* F. M. Jeffers describes an instructive case of this malady. The child was delivered under chloroform but the convulsions continued, despite Norwood's tincture of veratrum in teaspoonful dose by the mouth, and a hypo. syringe in addition subcutaneously. Eleven granules of veratrine, gr. 1-134 each were then given by the mouth, and within half an hour the pulse had dropped from 150 to 80, falling later to 40, with no other ill result than a little nausea. No convulsions occurred while the pulse was held below 60. At 2 p. m., 7½ hours after delivery, another convulsion occurred. The bowels had been moved by calomel and elaterin. Chloroform was used to supplement the veratrine, which was given in doses of four granules, hypodermically, every one to two hours as the pulse demanded. Next morning the purgatives brought away much canned corn and blackberry seeds, and no more spasms occurred. The urine was tested during the attacks and found to be normal. The convulsions were attributed to autotoxemia. The perfect control exerted by veratrine after tincture in huge doses had failed was notable. Venesection was not attempted as the patient had bled freely from a laceration.

**ANESTHESIA BY H-M-C.**—In *The Medical Herald*, C. R. Lytle, of St. Joseph, Mo., gives an interesting account of one hundred and fifty cases of surgery in which the new H-M-C anesthetic was employed. Dr. Lytle tries hard to be absolutely fair and impartial, and at the same time to so treat the subject as to avoid any suggestion that he is writing it as a write-up for the manufacturers of this article. In the latter object he certainly succeeds. On the whole the article is quite favorable. He tells of one case in which a serious rise in respiration occurred, the patient recovering after prolonged artificial respiration. His conclusions are in favor of the Abbott compound, as it is non-irritating to the air-passages or the kidneys, exerts no appreciable depressing effect on the heart, shows less tendency to post-operative nausea and vomiting, is conducive to less shock in prolonged operations, prevents nervousness on the part of the patient as the hour for operation approaches, has no exciting stage to pass through, and the time required in producing complete anesthesia is lessened. He does not consider the production of analgesia without anesthesia, as claimed, to be taken seriously. He finds much more chloroform to be required than is usually claimed, in addition to the tablet. One of the most annoying features of the new anesthetic to the surgeon in abdominal operations is the rigidity of the abdominal muscles, which not even the additional use of chloroform will overcome, as a rule. The report is on the whole a very fair one indeed, and, we believe, quite favorable to the method, although we feel sure that with further experience and the consequent improvement in technic,